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ABSTRACT

This report was developed as a result of a study that was conducted to identify and describe evaluation programs in vocational technical education at the national level, within the state of Wisconsin, and within selected local school districts in Wisconsin. The first of five chapters reviews the procedures used to synthesize evaluation programs. Chapter 2 discusses the legal mandates for evaluation in vocational education under the Vocational Education Amendments of 1976. Specific topics discussed include (1) funding and framework of planning, accountability, and evaluation: regulations for the states; (2) federal evaluation requirements; and (3) evaluation under the Vocational Education Amendments of 1976: a three-fold parallel system. The third chapter describes the national evaluation efforts of four major agencies: the National Advisory Council, the United States Office of Education, the National Institute of Education, and the National Center for Research in Vocational Education. The fourth chapter expounds upon vocational education evaluation efforts in Wisconsin. The final chapter briefly summarizes the procedures and method of analysis, gives a short description of the findings, and presents conclusions and recommendations for further research. (LRA)

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SYNTHESIS OF EVALUATION PROGRAMS IN VOCATIONAL EDUCATION AT THE NATIONAL LEVEL AND IN WISCONSIN

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Preface

The Federal Congress as well as the citizens of the Nation are asking more than ever before for accurate accountability from education. Evaluation is the tool most commonly used to determine if the original educational goals of the public were met. Vocational education from its very beginning has been instrumental in measuring not only the value of the product but describing the process as well.

Over the years a larger percentage of resources from vocational education has been spent for evaluation than any other educational program. Congress has recently insisted, however, that such evaluation be more systematic and thorough and take a national approach rather than only at the local or state level. This publication will describe such efforts at both the national level and in the state of Wisconsin.

Due to the fact that it is extremely difficult to reach agreement on the purpose of evaluation and the types of information to be collected, it will be impossible to reach conclusions and make recommendations which will satisfy everyone. It, therefore, is anticipated that there may not be complete agreement on the findings of this analysis.

Merle Strong
Center Director

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SYNTHESIS OF EVALUATION PROGRAMS IN VOCATIONAL EDUCATION AT THE NATIONAL LEVEL AND IN WISCONSIN

INTRODUCTION

"Evaluation in education is universally endorsed, widely misunderstood, poorly planned, crudely implemented, haphazardly staffed, and even ignored when the results are in" (Harris, 1975). This is also the image that a great many people have of what has gone on in evaluation in the past few years. This project will not attempt to either prove or disprove that statement, but hopefully, will provide insight to the true picture of evaluation in vocational education. The focus is to determine the present status of evaluation in vocational education and the use made of the findings of such evaluation.

In the hearings of the Congressional subcommittee (Committee on Education and Labor, 1976), the burgeoning growth in vocational education was described. A picture of vocational education was drawn showing tremendous increases in enrollment especially of the disadvantaged and handicapped, of increased funding; of the construction of hundreds of area vocational schools; and of increases in trained faculty and course offerings.

However, members of the committee were not pleased because of the lack of hard, substantive information of the way in which funds were being used. In particular, a "laissez faire" attitude was sensed by the committee in the Office of Education's role. The committee noted that no systematic program evaluation existed nation-wide that would make compatability possible between states. In the opinion of Congress, the Office of Education had not required "complete and proper data".

Another concern of the committee was lack of coordination of vocational education with the labor market. One of the areas of evaluation where greatest need was shown was in follow-up studies to show job

placement and employer satisfaction. Although 26 states had some form of follow-up evaluation, it was sporatic and uneven.

In the Amendments, Congress made clear that vocational education must become (Education Commission of the States, 1979):

1. more responsive to the labor market;
2. more accountable for how federal dollars are spent;
3. more open to special sub-populations--women, minorities, handicapped, disadvantaged, people with limited English, displaced homemakers;
4. less sex biased and stereotyped.

The first phase of the study deals with evaluation at the national level which is primarily under the direction or conducted by the United States Office of Education (USOE), the National Institute of Education (NIE), and the National Center for Research in Vocational Education (NCRVE). Next, evaluation efforts in the state of Wisconsin are reported. Thirdly, an analysis of a number of school districts within Wisconsin has been made to determine the extent and results of evaluation in vocational education at the local level. At each level we have attempted to look at the programs in operation and relate these to the mandated evaluation in the Vocational Education Amendments of 1976.

The major purpose of this study is to identify and describe evaluation programs in vocational technical education at the national level, within the State of Wisconsin, and within selected local school districts in Wisconsin. The working objectives of this project are as follows:

1. to describe the evaluation process as prescribed by the Vocational Education Amendments of 1976;
2. to conduct a search and synthesize the completed national programs of evaluation of vocational education since 1975;
3. to identify and describe those national evaluation programs in vocational education now underway;
4. to identify and synthesize the completed major evaluation programs of vocational education in Wisconsin since 1975;
5. to identify and describe those vocational education evaluation

programs now in operation in Wisconsin;

6. to determine the extent of evaluation of local programs of vocational education in Wisconsin (both secondary and post-secondary).

Description of Activities

The following activities were carried out in investigating and synthesizing evaluation efforts in vocational education at the national, state, and local level.

Analysis of Vocational Education Amendments of 1976

The first major task was to carefully analyze the Vocational Education Amendments of 1976, and to identify those mandates in the Amendments which relate to evaluation of vocational education programs. This was a key step as later evaluation programs studied were keyed to those sections that were mandated by Congress.

Collection of Materials at the National Level

Visits were made by a member of the research team to the National Institute of Education, the United States Office of Education, the National Center for Educational Statistics, and the National Center for Research in Vocational Education. The major purpose was to acquaint personnel from these agencies with the study and to obtain materials and information.

Excellent cooperation was received at the national level from each of the groups mentioned. There were some problems involved, however, with a number of studies that had recently been completed but had not been approved and released by their funding source. In nearly every case, however, the funding source was alerted to the problem and approval was made for inclusion within this report. The material contained in this report is only that which can be documented either by a request for proposal, or

copy of proposal, or copy of an interim or final report. Information which was passed to us only in conversations and could not be verified by written documents was not included in this research.

Review of Wisconsin Data

Data for the Wisconsin section report was obtained primarily from personnel in the Department of Public Instruction (DPI) covering the secondary programs and personnel of the State Board of Vocational Education covering the post-secondary programs. It should be understood that Wisconsin is somewhat unique in having a dual type system of vocational education where the administration of the post-secondary is completely separate from that of the secondary programs. This made it necessary that both groups be contacted. Within each of the state agencies the emphasis was on completed reports of evaluation or written documents describing evaluation in progress.

Investigation of Local School Programs

A representative sample of five of the post high school vocational technical institutes in Wisconsin were chosen. These are as follows:

1. Milwaukee Area Technical College;
2. Blackhawk Technical Institute-Janesville;
3. District One Technical Institute-Eau Claire;
4. Wisconsin Indianhead VTAE District Office; and
5. North Central Technical Institute-Wausau.

These individual schools are not identified with specific findings within this report. Visits were made to each of these institutions to determine:

1. the status of evaluation;
2. the problems involved in evaluation;
3. the use that is made of previous evaluation.

The development of an evaluation program for postsecondary vocational eduation is the responsibility of both the local schools and the State Board. Each has recognized this and are working together to accomplish the task. The visits to the individual schools were necessary to study the local programs but also to observe the State Board program in operation at the school level.

In the study of the secondary schools, it was found that the Department of Public Instruction has a five-year program which will cover evaluation of all secondary vocational education within the State of Wisconsin. It was also learned that the Department of Public Instruction is working with the North Central Association of Colleges and Secondary Schools in accrediting programs. The evaluation of the Department of Public Instruction will count as the vocational education section of the accreditation by the North Central Association. One school was completed two years ago on a pilot basis only. This is not counted in the regular evaluation schedule.

Last year 17 schools completed the first phase of the evaluation. Seven of these schools were selected to be visited. They are:

1. Franklin;
2. Chippewa Falls;
3. Trempealeau Valley;
    a. Arcadia,
    b. Blair,
    c. Independence,
    d. Taylor,
    e. Whitehall.

This year 48 schools were included in the evaluation program. Six of these were selected and are as follows:

1. Barron;
2. Chetek;
3. Prairie Farm;
4. Janesville;
5. Stanley-Boyd;
6. Tomahawk.

Visits were made to each of these schools to determine:

1. the extent of evaluation;
2. additional evaluation beyond that conducted by the DPI;
3. the problems involved at the local level in conducting evaluations of vocational education programs;
4. the use made of the findings of the evaluations.

In both the post-secondary and secondary programs, letters were sent from either the Wisconsin State Board of Vocational, Technical and Adult Education or the consultant to the Wisconsin Department of Public Instruction in Vocational Education to the local school administrator explaining the team visit, the purpose, and asking each of the schools to cooperate. In every case excellent cooperation was obtained at the local levels.

CHAPTER II

LEGAL MANDATES FOR EVALUATION IN VOCATIONAL EDUCATION: NATIONAL LEGISLATION VOCATIONAL EDUCATION AMENDMENTS OF 1976

While need and demand for vocational education persuaded Congress that increased funding is warranted, the hearing preliminary to legislative action in 1976 increased concern that funding alone is not the sole answer to providing the best possible vocational educaiton programs. Thus the 1976 Vocational Education Amendments call for major changes in the way evaluation programs are administered by the United States Office of Education (USOE) and the states. These changes occur mainly in the areas of planning, accountability (data collection and use), and in evaluation and follow-up.

Hearings before the House Committee of Education and Labor indicate that planning in the past had often been to comply with federal regulation and not to provide direction to programs. The charge was made that implementation of the Vocational Education Act does not conform to the Congressional mandate to use the "needs, interests, and abilities of the individual", an light of "actual or anticipated job opportunities", to plan programs (Committee on Education and Labor, 1976).

Some of the other concerns of Congress were:

1. lack of coordination of planning between state boards, higher education, and employment and training agencies;
2. lack of involvement of state advisory councils in developing state plans;
3. lack of accountability both at the federal and state level. This is due to poor practices of data collection where much paperwork produced data and criteria without common definition or plan. Data which was available was not transformed into information for decision making.
4. failure of administrators in vocational education to find and make use of reliable employment data, so that labor market demand and supply was not fully assessed. Liaison was shown to be needed between USOE and the Department of Labor at the

federal level. It was found that at the state level, funds were needed to allow employment agencies to provide data compilations to educators.

In the area of evaluation and follow-up the hearings disclosed a lack of systematic program evaluation. Evaluation at the state level varied greatly among the states and was not carried out in a systematic way nation-wide. The greatest need was for studies showing the job placement of, and employer satisfaction with, program completers and leavers, since only 26 states had some form of follow-up. The General Accounting Office analysis found that enrollments did not indicate a shift in training from traditional to new emerging job opportunities, and found states were not making efforts to initiate programs in areas with increasingly high labor market demand (GAO Report to Congress, 1974).

Interwoven throughout the hearing was the implication that federal money would be needed to help foot the bill for the proposed changes. By authorizing dollars to the task in the 1976 Vocational Education Amendments, Congress gave strong impetus to a changing evaluation process for vocational education nation-wide.

I. Funding and Framework of Planning, Accountability, and Evaluation: Requirements for the States

To insure compliance and facilitation of the proposed changes, authorization was made to the states for planning, accountability, and evaluation in the amount of $25,000,000 for fiscal years 1978-82. Additional sums were authorized for state advisory councils to carry out their functions independent of other state boards, agencies, and individuals. These amounts were $8,000,000 for fiscal year 1978, $8,500,000 in 1979, $9,000,000 for 1980, $10,000,000 for 1981, and $8,000,000 for 1982. No state is to receive more than $200,000 or less than $75,000 for this program.

A. Planning (Section 108)

A state five-year plan is to be submitted beginning fiscal year 1979

and each fifth year thereafter. Involved in the planning will be representative of state secondary and postsecondary education, vocational education teacher, local school administrators, local school boards, the state advisory council, the State Manpower Service Council, and the state planning agency or commission responsible for comprehensive planning in postsecondary education. The five-year plan is to:

1. assess current and future needs for job skills;
2. set out explicit goals for meeting those needs in terms of course and training opportunities, projected enrollments, and responsibilities of various levels and institutions of education;
3. set out uses of federal, state and local funds for each year of the state plan;
4. explicitly set out uses of funds for basic grant programs--research, disadvantaged, consumer and homemaking, handicapped, and bilingual;
5. set forth policies to assure equal access and elimination of sex discrimination;
6. coordinate manpower training programs and vocational education.

B. Accountability (Section 108)

The state will submit an annual program plan to the Commissioner of Education by July 1 of each year. This plan will:

1. update the five-year plan if necessary;
2. show results of coordination with manpower programs;
3. show results of programs to eliminate sex discrimination;
4. report on how the prior year's program achieved goals of five-year plan;
5. describe use of funds for the prior year for various purposes, and results achieved;
6. include a summary of the evaluation of the state's program and how the evaluations are being used for program improvement.

C. Evaluation (Section 112)

During the five-year plan each state will evaluate the effectiveness of each program. The results of this evaluation will be used to revise the program. Each program within the state which purports to impart entry lovel job skills will be evaluated by follow-up studies using data collected by statistically valid sampling techniques. These follow-up studies will assess to what extent completers and leavers:

1. find related employment;
2. are considered to be well trained by employers.

In this evaluation, pursuit of further education and training shall not be considered negatively.

In formulating its plan to fulfill their requirements, the state will consult annually with the state advisory council which will assist in developing the plan, monitoring the evaluations, and will use the results in preparing its annual report.

Evaluation (Section 105)

Each state advisory council will also evaluate vocational education program services and activities and publish and distribute the results. The council will prepare and submit to the Commissioner and the National Advisory Council an annual evaluation report, accompanied by additional comments of the state board, which:

1. evaluates the effectiveness of the vocational education program, services, and activities carried out during the year in terms of meeting the program goals of the five-year plan, and the annual program plan and accountability report, including consideration of program evaluation reports;
2. recommends such changes as may be desirable.

The state advisory council will identify (after consultation with the Manpower Services Council) the vocational education employment and training needs of the state and assess the extent to which vocational education programs represent a consistent, integrated, and coordinated approach in meeting such needs. They will also comment once annually on the reports of the State Manpower Services Council.

Local advisory councils are required for each local education agency and postsecondary institution. Their purpose is to provide advice on current job needs and the relevancy of courses in meeting their needs. The state advisory council will give technical assistance to local council as requested.

Evaluation (Section 104)

Each state will reserve $50,000 from its basic grant to provide full-time personnel to identify and eliminate sex bias and stereotyping in vocational education programs. This staff will make information available to national and state advisory councils, to the state, the Commissioner, and to the general public.

II. Federal Evaluation Requirements

In order to assist the states in operating the best possible vocational education the federal government will analyze strengths and weaknesses of each state plan; review and audit selected programs; and develop a data reporting and accounting system. A product of this evaluation will be an annual report to the Congress on the status of vocational education in the country during each fiscal year. In addition, the National Institute of Education is charged with performing a comprehensive evaluation of vocational education, and based upon the findings, to make suggestions for improvement and future planning.

Federal governmental units involved in evaluation of vocational education are the following:

A. Commissioner of Education, USOE

Within four months of the receipt of the state plan, the Commissioner shall study the plan and the accountability report and transmit an analysis of these back to the state. Included in this appraisal will be suggestions for improvement (Section 112).

The Commissioner shall not approve plans until he makes specific findings in writing pertaining to (Section 109):

1. the state's compliance with the Act (Section 107) and assurance that procedures are set forth as described in Section 106;
2. progress toward the goals set forth in the state five-year plan;
3. assurances that personnel assigned to assess programs in the state to assure equal access have reviewed the plan;
4. the state's compliance with use of nationally uniform definitions and information elements in data collection.

The Commissioner shall prepare and submit an annual report to Congress on the status of vocational education in the country during the fiscal year. This report shall include (Section 112):

1. data on informational elements developed in the national vocational education data reporting and accountability system;
2. an analysis of these data;
3. a summary of the findings of the reviews and audits of the Bureau of Occupational and Adult Education (BOAE), and the Department of Health, Education, and Welfare (HEW) described below;
4. also a report of the state evaluation and of the data and findings of the follow-up studies of completers and leavers.

The Commissioner of Education shall carry out a study of the extent to which sex discrimination and sex stereotyping exists in all vocational education programs. The Commissioner is to report the results of this study within two years of enactment of this Act.

The Commissioner and the Secretary of Labor together shall (Section 182):

1. develop and dissiminate accurate information on the status of bilingual vocational training in the U.S.;
2. evaluate impact of such bilingual vocational training in shortages of trained personnel, unemployed and underemployment of persons with limited English speaking ability.

B. Bureau of Occupational and Adult Education (BOAE) (Section 112)

The BOAE will conduct a review in at least ten states of the strengths and weaknesses of the vocational education program.

C. Department of Health, Education, and Welfare (HEW) (Section 112)

Concurrently with the BOAE review in at least ten states, HEW will conduct a fiscal evaluation of the same programs. The information from these parallel studies will be utilized by the Commissioner in the annual report to Congress.

D. National Advisory Council (Section 162)

The National Advisory Council shall continue to exist through 1982. The broadly based membership of this committee includes representatives of labor, management, manpower, education, correctional institutions, and the general public (including parents and students). The majority of the committee shall not be educators.

The National Advisory Council will:

1. advise the President, Congress, Secretary of HEW, and the Commissioner of USOE concerning administration, budget, general regulations, and operation of vocational education and manpower training;
2. review the administration of the law and make recommendations;
3. identify (after consultation with the National Commission for Manpower Policy) the vocational education and employment and training needs of the nation;
4. make any other reposts or recommendations that seem desirable;
5. conduct such studies, hearings, or other activities as necessary to formulate recommendations;
6. conduct independent evaluation of programs, publish, and distribute results;
7. provide technical assistance and leadership to state advisory councils.

E. National Center for Educational Statistics (NCES) (Section 161)

The Commissioner and the administrator of the National Center for Educational Statistics shall jointly develop information elements and uniform definitions for a national vocational education reporting and accounting system (Vocational Education Data and Occupational Information Service).

Information to be gathered includes the data resulting from the state evaluation requirements in Section 112 as well as other information on students (including race and sex), programs, program completers and leavers, staff, facilities, and expenditures. The states will cooperate in supplying the information required using information elements and definitions that have been developed.

F. A National Occupation Information Coordinating Committee will be established consisting of the Commissioner, the administrator of the National Center for Educational Statistics, the Commissioner of Labor Statistics, and the Assistant Secretary for Employment and Training. This committee will:

1. improve coordination and communication among administrators and planners, and manpower planners and agencies at federal, state and local levels;
2. develop and implement an occupational information system to meet the needs of planners, including data on occupational demand and supply which is based on uniform definitions, standardized estimating procedures, and standardizing occupational classifications;
3. assist state occupational information coordinating committees.

G. National Institute of Education (NIE) (Section 523(b)(1))

The NIE is charged by Congress with undertaking "a thorough evaluation and study of vocational education programs, including such programs conducted by the states". This study is to include:

1. the distribution of vocational education funds in terms of services, occupations, target populations, enrollments, and

what such distributions should be in order to meet the greatest human resource needs for the next ten years;

2. an examination of how to achieve compliance and enforcement of the provisions of the law;
3. an analysis of the means of assessing program quality and effectiveness;
4. findings and recommendations concerning 1, 2, and 3 above.

H. National Center for Research in Vocational Education (NCRVE) (Section 171)

A national center for research in vocational education is to be designated every five years assisted by an advisory committee appointed by the Commissioner. The center shall either directly or working through other public agencies:

1. conduct applied research and development on problems of national significance;
2. provide leadership development through advanced study and in-service training for state and local leaders;
3. disseminate results of research and development projects funded at the Center;
4. act as a clearinghouse on state contracts and Commissioner's contracts;
5. develop methods of evaluating programs.

III. Evaluation Under the Vocational Education Amendments of 1976: A Three-fold Parallel System (figure 1)

The Vocational Education Amendments of 1976 established a complex parallel system of evaluation by three groups:

Lay Groups--These groups are the State Advisory Councils and the National Advisory Council whose membership is drawn predominently from business, labor, and the general public.

Program Delivery System--the professional vocational education hierarchy in the governmental structure from teachers

EVALUATION UNDER VOCATIONAL EDUCATION AMENDMENTS OF 1976

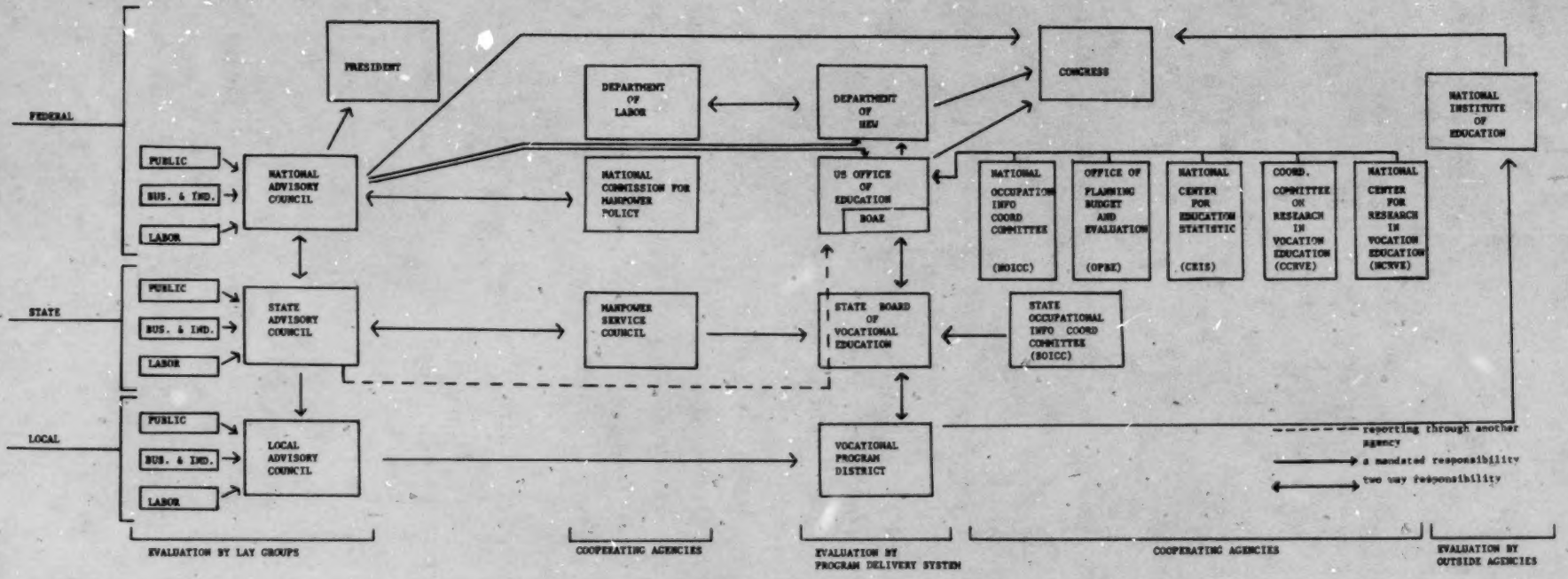

Figure 1

in the local districts up to the Commissioner in the Office of Education with responsibility of providing resources for programs.

Outside Evaluators--those agencies of government mentioned in the law, or the groups which contract with them, to look at the system of vocational education from an observer's stance or from an analytical point of view.

Operation of the Three-fold System

Looking at Figure 1, a three-by-three design is apparent, divided horizontally into Federal, State, and Local levels, and vertically into systems of evaluation by the three groups.

A. Evaluation by Lay Groups

In 1963 Congress decreed that the National Advisory Council for Vocational Edcuation (NACVE) be established to review program quality. The 1968 Amendment specified that this evaluation be performed independently. This lay group made up of a broadly based segment of the public including representatives of labor, business, management, manpower, correctional institution staff, educators, and the general public has been continued in the 1976 Amendments through 1982 and has been so funded.

The NACVE is responsible directly to the President, Congress, the Secretary of HEW, and the Commissioner of USOE. Their evaluations can cover any area deemed necessary, but their emphasis is upon administration, regulation, budgeting, and operation of vocational education programs under the law. They are also given a responsibility of consulting with the National Commission for Manpower Policy on employment and training needs of the nation.

The role of the State Advisory Councils was expanded in the 1976 Amendments to consider program evaluation reports developed by the State Boards, and to work with State Manpower Services Council to make recommendation of vocational education training needs. The Council is

responsible for an annual report which uses the State five-year plan as a basis for determining whether state goals are being met. Their report goes both to the National Advisory Council and to the Commissioner via the route of the State Board.

Local Advisory Councils are designated by the Amendments of 1976 to serve in program areas or district to advise on job needs and the relevancy of courses being offered. No formal evaluation is required of these groups, but informal evaluation does occur which feeds directly into the local school programs.

B. Evaluation by Program Delivery System

Stringent requirements are made of the State Boards in accomplishing "improvements in planning, accountability and evaluation" in the 1976 Amendments. A five-year plan must be submitted to the Commissioner and it must be reviewed annually in a program plan to describe progress toward the goals expresses. An annual accountability report accompanies the program plan, which must utilize the Vocational Education Data System described below.

A new requirement is that every program in the state which teaches entry level job skills be evaluated once each five year cycle in follow-up study of program completers and leavers and in the satisfaction of employers.

State approaches in implementing the new requirements are varied and are described in Chapter IV. These approaches often include self-evaluation by local districts, and on-site visits by evaluation teams.

The Bureau of Occupational and Adult Education (BOAE) is the agency within USOE which bears responsibility for review of state plans and administration duties within the system. The Bureau also provides long range planning for vocational education and for training responsibility. The Amendments of 1976 call for an annual study to be done jointly by the BOAE and HEW. This is an annual review of at least ten state

programs, and has been given the title Management Review for Compliance and Quality (MERCQ). While BOAE looks at the strengths and weaknesses of the vocational education program, HEW will conduct a fiscal audit. Members of the National Advisory Council serve on the review team.

C. Evaluation by Outside Agencies

The National Institute of Education (NIE) will conduct a thorough evaluation of vocational education programs including state programs during the period from 1977 through 1982. The NIE will look at the distribution of funds, compliance with the law, and other concerns, They will make projections and recommendations of improvement practices for vocational education as a result of these studies.

National Center for Educational Statistics (NCES)

The need for common definitions and national criterion of accountability is basic to the development of the Vocational Education Data System (VEDS), developed jointly by NCES and USOE. Information to be included in VEDS reporting includes; students (including information on race and sex), programs, program completers and leavers, facilities, and expenditures.

Joint Study by Commissioner of Education and Secretary of Labor

A longitudinal study of bilingual vocational training was ordered in the Amendments of 1976. First designated by Congress as an area of concern in 1973 in CETA, bilingual vocational training appeared in the Vocational Education Amendments of 1976. Lack of response to the law prompted Congress to require an annual report from the Commissioner on the status of bilingual vocational training and its impact.

National Center for Research in Vocational Education (NCRVE)

A major responsibility of the NCRVE is to develop methods of evaluating programs. The Vocational Education Research Center at Ohio State was designated as this research center through 1982. Technical assistance is available through the Center directly to states in developing techniques. Other projects related to evaluation practices are also underway.

CHAPTER III

EVALUATION OF VOCATIONAL EDUCATION AT THE NATIONAL LEVEL

The national evaluation efforts of four major agencies will be discussed in this chapter; the National Advisory Council, the United States Office of Education, the National Institute of Education, and the National Center for Research in Vocational Education. It will deal with those studies completed since 1976 as well as those in progress.

I. The National Advisory Council for Vocational Education (NACVE)

The National Advisory Council was given clear advisory responsibilities under the law in the Vocational Education Act of 1963 and the Amendments of 1968. Their primary responsibility is to provide a concerned and informed view of the vocational education process from outside the education establishment.

While praising the work of the Council as one of the outstanding advisory councils in the federal government, the House Committee on Education and Labor was critical of the way in which it had "picked and chosen among its duties and not always performed all duties required of it in the Act" (House of Representatives, 94-1085, 1976).

The National Advisory Council is authorized to conduct independent evaluations of programs and may publish and distribute the results. The Council is also authorized to conduct studies, hearings or other activities it deems necessary to formulate its recommendations.

Although many of the Advisory Council's responsibilities remained the same, new emphasis was placed on evaluation in the Amendments of 1976. To fulfill all of its old mandates as well as new ones the Council organized itself around the work of task forces (NACVE Annual Report, 1977). Those task forces have the following concerns:

1. Legislation--interpretation of legislation as it pertains to vocational education;

2. Assessment of Administration and Operation of the Bureau of Occupational and Adult Education--the two phases of the study are described below;
3. Management Evaluation Review for Compliance and Quality--participation in review activities;
4. American Indian Vocational Education--series of four hearings to enable Council to make recommendations as to use of one percent set aside funds for vocational education for American Indians;
5. Disadvantaged and Handicapped--determine programs available to these special groups;
6. National Vocational Education Policy--deal with the need for vocational education philosophy and policy;
7. Technical Assistance to State Advisory Councils--publishes a Resource Book and an Exchange Bulletin, compiles a yearly summary of all State Advisory Council Evaluation reports (1977 Summary is included below);
8. Manpower Policy--liaison between the Council and the National Commission for Manpower Policy. The Impact of CETA on Institutional Vocational Education--a study contracted by NACVE is included below.

Evaluation Activities Completed or Ongoing

Some projects undertaken by the National Advisory Council since 1976 are described herein:

1. a task force investigation of vocational education administration in the Bureau of Occupational and Adult Education and Division of Vocational and Technical Education;
2. compilations of state advisory council reports (the 1977 report and analysis of state evaluations of progress toward meeting the goals of state plans is discussed here);
3. an investigation of the impact of the Comprehensive Education and Training Act on institutionalized vocational education;
4. an investigation of articulation between secondary and post-secondary programming.

The total cost of evaluation by the National Advisory Council is approxi-

mately $190,000 which includes $35,000 for their work with MERCQ.)

A. A Study of the Administration and Operation of Vocational Technical Education Programs--Bureau of Occupational and Adult Education (BOAE), United States Office of Education (NACVE Interim Report, 1977)

Alerted to the need expressed in the 1974 report of the General Accounting Office for improved practices in planning programs, distributing funds, using resources, and relating training to employment, the National Advisory Council, in September of 1976, began a study over a two year period of administration of vocational programs in the BOAE. Phase I of this investigation centered on the Division of Vocational Technical Education which is responsible for administering state grants.

Phase II of the study was to examine the BOAE's programatic leadership to states with a particular concern for the leadership given in the various desciplines of vocational education. The study was also to identify BOAE's leadership guidance, evaluation, planning, cooperative education and special needs. A third concern was to be an historic overview to try to determine the "disruptive effects over time of constant reorganization" (Interim Report, 1977).

In the completed Phase I which concentrated on the Division of Technical Vocational Education, the study used formative evaluation and analytic analysis. The research techniques included interviews with 15 professional staff of the Division and the Bureau, and additional interview with state directors and personnel from the Office of Education, HEW, and the Office of Management and Budget, Mission statements and internal documents were also reviewed.

The three components of the Division of Technical Vocational Education's operation studied were:

1. the appropriateness of the Division's mission as stated in the law;
2. the efficiency and effectiveness of the Bureau's structure in allowing the Division to fulfill its mission;

3. the process as the Division had chosen to satisfy its mission.

Data collected was then organized into six categories--external factors, structure, workload, staffing, operational planning, and administrative planning. Although the final report and recommendations are delayed until the completion of Phase II, the interim report of the task force sets forth a number of problems within the Bureau which made the Division's performance less effective than is desirable, and which consequently may have caused problems in providing service to the State Board of Vocational Education. These problems include:

1. a lack of understanding of the Bureau's leadership role at the Department of HEW and Office of Management and Budget levels and lack of a well defined "work measurement" system in the Office of Education;
2. inadequate communication, coordination and follow-up within the Bureau;
3. work loads that were "inordinate" in the words of the task force;
4. inadequate support staff, delays in filling positions for professional staff, and improper use of program specialists as generalists;
5. an operational planning system in need of improvement;
6. reasonable provision for review of state plans if qualified staff is given adequate time for analysis.

B. Annual Analysis and Summary of the State Advisory Council's Evaluation Reports (SACVE Report, 1977)

The compilation of the reports of the state advisory councils is done by the National Advisory Council with three purposes in mind:

1. to give the National Advisory Council, and through it to Congress, Secretary of HEW, and the President, significant information concerning progress and problems of vocational education in the 56 states and territotial regions;
2. to provide an exchange of ideas among state councils;

3. to make information of a descriptive nature available to the general public which will help interpret established data available from the BOAE.

The summary tally of evaluation of state plans showed that only nine of the 56 evaluated the effectiveness of their state plan in meeting goals and objectives, while 17 either did not evaluate it at all, or made no mention of it. Twenty state councils made general or specific evaluative statements while ten described their Councils own activities related to the state plan.

One state advisory council, in explaining why it could not fulfill its mandate, stated it was critical of the state plan because it was a "compliance document" required by the federal government. This state also believed statistical data called for in the tables "does not appropriately measure the effectiveness of vocational education programs in the state" and that such "instead evaluates the effectiveness of the Director of Vocational Education in estimating the budget requirement".

Another difficulty in meeting evaluation requirements is that unless the state plan includes goals and objectives with identifiable outcomes and specific programs, activities, and services, with supporting budget allocations, outcome evaluation is impossible.

C. The Impact of CETA on Institutionalized Vocational Education (NACVE, 300-75-0340, 1977)

Purpose of the Study

The Comprehensive Training and Employment Act of 1973 (CETA) was enacted to provide skill training and job placement for the population often described as hard core unemployed. State and local governmental units were given responsibility for providing these services and acting as "prime sponsor". The effect of CETA was to place governmental units in the business of providing skill training, thus entering the domain of educators, many of whom were "outraged at the creation of a competa-

tive education system" (NACVE, 300-75-0340, 1977). Rather than cooperation and mutual assistance between governemntal and educational units, a disappointing lack of response seemed to result. The situation prompted the National Advisory Council to contract with the National League of Cities and the Conference of Mayors to conduct a study of CETA as it impacts on vocational education institutions.

Methodology

During 1974, the first year of the study, 100 prime sponsors were sent questionaires which asked for responses on procedures, experiences, funding, and operation of vocational education programs under CETA. There were 74 respondents. The general areas of information requested in the questionaire are listed below:

1. prime sponsor identification;
2. program administration--how prime sponsor was notified of funding, from whom funding was obtained, amount of funding, percentage of state allotment, "slots" provided, students enrolled with addition of CETA Title I funds;
3. operation--where labor market projections were obtained, types of programs offered, other services provided to enrollees, agency for job placement, ability to expand program if necessary;
4. coordination of working relationships with vocational education institution relationship with state and local vocational education administrative system, representation on Manpower Advisory Council, reasons for ceasing to fund institutions providing vocational education under Manpower Development and Training and Equal Opportunities Act.

Findings and Conclusions

In Case Studies and Final Report of 1977 this comprehensive impact study identifies as early problems "difficulties involved in coordinating the activities of two very different political systems". For skill training to be responsive to disadvantaged populations, it should have the following characteristics:

1. short direct training for immediate skills for job placement;
2. flexible open entry-open exit without having to coincide with semester timing;
3. supportive services such as stipends or allowances, medical care, child care, and legal services;
4. quick and effective job placement;
5. instructors with ability to work with the disadvantaged.

The first study showed little impact of CETA on institutionalized vocational education. In the 1976 report the relationship between prime sponsors and vocational institutions had improved, but this had not resulted in increased funds to vocational education. Prime sponsors reported lack of flexibility and philosophical differences as the greatest problems. Where good cooperation was achieved, personal relationship had brought it about.

The final report in 1977 indicated there was still great room for improvement nation-wide in the cooperation between CETA and institutionalized vocational education. The Amendments of 1976, with emphasis on new linkages to the CETA system were viewed with hope. The creation of the National Occupational Information Coordinating Committee at the federal level was also viewed positively by the evaluators.

D. Articulation: A Study by the National Advisory Council on Vocational Education (NACVE, VT 103-566, 1976)

This national survey of articulation was done to determine the degree to which vocational education in secondary schools is continuous with the same or closely related fields in postsecondary.

The definition of articulation used in the study was "the planned process within the educational system which facilitates the transition of students between secondary and postsecondary levels of instruction and allows students to move with continuity and without hindrance through the levels of the educational process".

Objectives

1. identify existing procedures which indicate articulation;
2. identify members and types of programs included in the articulation process;
3. determine the extent of articulation in apprenticeship programs;
4. identify levels and institutions involved--planning and coordinating programs which are articulated;
5. identify factors which encourage articulation;
6. identify those factors preventing articulation.

Methodology

An original survey design was developed and reviewed by individuals outside the National Advisory Council representing the Office of Education, the National Center for Educational Statistics, and the National Association of State Directors of Vocational Education.

The survey instrument was then sent to 56 state advisory councils in January 1976. The rate of the response received was 85%. In addition to completing the survey many state advisory councils provided materials which gave further insights. These documents together with AIM/ARM and ERIC constituted the review of literature.

Data from the survey were tabulated in descriptive and anecdotal form with results further tabulated on the basis of the six objectives. Conclusions were then drawn:

1. there is planned articulation between secondary and postsecondary in slightly less than 40% of the states who responded;
2. where granted, advance placement is often based on criteria other than completion of secondary programs;
3. there is limited interstate articulation in about 50% of the states;
4. articulation occurs most frequently in apprenticeship occupations, in occupations requiring licencing, or those which might be continued at a higher educational level.
5. in nearly 50% of the states responding there is a coordinating council or committee to address articulation issues;

6. effective results have been achieved in promoting articualtion through state level workshops and issue forums, development of sequential curriculum and competency exams, and positive changes in philosophies of cooperation;
7. factors preventing articulation were identified as: existing governance policies, lack of planning, prevailing attitudes, lack of staff, facilities, and programs, and geography.

II. United States Office of Education (USOE) and the Department of Health, Education, and Welfare (HEW)

The congressional mandate to the Office of Education was to improve vocational education programming through an increased emphasis on planning, accountability, and evaluation. The following evaluation efforts required of the Office of Education and other HEW agencies reviewed in this project are:

A. Management Evaluation Reviews for Compliance and Quality (MERCQ) is an annual review of at least ten states performed by BOAE with concurrent fiscal evaluation by HEW;

B. Vocational Education Data System (VEDS) was developed by congressional mandate to be done jointly by BOAE and the National Center for Educational Statistics (VEDS is a national accountability system for vocational education.);

C. Study of Sex Discrimination and Stereotyping in Vocational Education was made the responsibility of the Office of Planning, Budget, and Evaluation;

D. Study of Bilingual Education and Annual Status Report is a joint responsibility of the Department of Labor and USOE;

E. National Study of Vocational Education Systems and Facilities was prepared by the Office of Planning, Budget, and Evaluation, the purpose being to secure information about organizational and operating characteristics of vocational education.

A. Management Evaluation Reviews for Compliance and Quality (MERCQ) (BOAE, 1978, approximate cost: $200,000)

MERCQ is intended to be a cooperative endeavor of the USOE and the states to measure each state's capacity for, and performance in, complying with the Vocational Education Act and Amendments. MERCQ is to augment evaluation by state advisory councils and federal agencies. State-by-state evaluations were begun in March 1976; when MERCQ is fully implemented, each state will be evaluated every five years.

Review Procedure

Evaluation is by five day team on-site visits to the state agencies which focus on the states' conformity with both their own five-year plans and the federal regulations and law. The team is normally 12 members, composed of BOAE staff, and National Advisory Council member, and the state director of vocational education from the state scheduled for the MERCQ review. Normally the review is conducted entirely at the state level. Approximately six weeks prior to the visit the state receives the materials which the team will be using for evaluation, itemizing the regulations for which compliance will be checked. The review itself is done by interview and by checking documentation over a one week period. The visit concludes with an exit interview, one month after which, a report is to be submitted by the team to the chief state school officer.

Four ratings are possible as a result of the visit: in compliance, not in compliance, compliance to be determined, and regulations non-applicable. In cases of non-compliance or compliance to be determined, follow-up actions are established. When not in compliance in areas where other agencies have shared responsibilities, those agencies are advised of review results.

The MERCQ system originally dealt only with compliance. The procedure was to break the regulations down into their smallest individual components and for each item a report sheet was to be submitted with information under the following headings: findings, evidence, recommendations, and follow-up.

Forms Used in the Review

Separate forms are included in the Planning/Evaluation packet for the following sections of the regulations referring to state board responsibilities (Section 104):

1. quantitative evaluation of process;
2. quantitative evaluation of product;
3. quantitative evaluation of placement;
4. quantitative evaluation of services to special groups;
5. use of evaluation with reference to the five-year plan;
6. sending evaluation results to the state advisory council;
7. collecting placement data on completers as opposed to leavers;
8. employer opinion collected on completers as opposed to leavers.

The Program Purposes packet contains a form for evaluating (Section 104):

1. continuous evaluation and follow-up of cooperative vocational education programs.

Under General Provisions, a form for the following is included (Section 100):

1. monitoring performance under federally supported activities to make sure progress is being made towards achieving the state plan goals.

Evaluation of adult education pursuant to Public Law 91-230 is included under the following sections of the regulations:

1. annual evaluation (Section 306)
2. annual evaluation (Section 309)
3. recent independent evaluation used in developing state agency policy toward local program approval.

Interview Guides

In January 1978 consideration of program quality was added to the MERCQ system. Two interview guides, dealing with state planning and follow-up procedures, have been developed and more are in process. The format of the guides consists of statements as to the situation being investigated to which a yes or no answer is provided, with explanation as appropriate. Both guides suggest detailed attention to such aspects as involvement of a wide range of individuals and agencies, use of

accurate and detailed information to assess actual market needs and supply estimates, well defined coordination with other agencies, and publication and dissemination to the public of policies and activities.

The interview guide for planning indicates assessment as to the existence of a formalized and functioning vocational education policy, its consistency and integration with overall educational policy in the state, its cooperative development by secondary and post-secondary boards, and the careful definition of roles and responsibilities in the delivery of services. In assessment of needs, use of information from all possible sources is emphasized--the state occupational information coordinating committee, the state employment security agency, the industrial development agency, socio-economic data, data on economic growth trends, labor market data, and citizen surveys. Supply estimates are related to CETA, apprenticeship, and other vocational education programs, public and private; and also consider migrants, re-entrants to the job market, and the skilled unemployed.

Formulation of Goals and Objectives

The procedure for formulation of goals and objectives is examined for factors considered, such as citizen and manpower needs, national priorities, and information used; coordination with other agencies, non-educators, and the public; and the definition of the procedures themselves. Goals and objectives are to be clear, realistic, consistent, in terms of measurable performance, and in understandable language. They are to specify target groups, time frame, and outcomes, and are to be ordered as to priority with a view to outside input, needs, and other state and federal policies. The means to achieving these goals and objectives are also examined as to specificity in the plan; careful consideration of all alternatives with reference to availability and cost of services, efficiency, the range of programs and services offered, and the formulae for allocation of funds.

Follow-up Procedure

State follow-up procedure is examined for the emphasis given to it

by state policies and allocation procedures, the usability of the data gathered, and the actual use of results. The guide statements look for precise definition of terms, standardized procedures, a standardized data core, and statistical validity of samples used, as well as adequacy of the response rate and confidentiality of the data. Analysis is to be done by automated data processing, by program code, special groups, and individual institution sampled. A report with narrative interpretation is to be widely disseminated.

It is unclear from the published material on the MERCQ system what follow-up will be done by the evaluating team with regard to the quality aspect of the review.

B. Vocational Education Data System (VEDS) (NCES, 1978, cost: $1,500,000 for NCES, estimate $25,000,000 for the states)

In congressional hearings prior to the 1976 Amendments, Congress stated its need for answers to the following questions about vocational education:

1. Who is being served?
2. What are they being served?
3. What is being accomplished?
4. At what cost?

To answer these questions a comprehensive data collection system will be in place nation-wide in fiscal year 1979. It's purpose is to assure accountability in use of federal money, and to provide comprehensive and uniform data which can be used in program improvement and planning.

Development of VEDS

The early development of VEDS had input from state agencies and from ten federal groups or agencies with the major responsibility going to the National Center for Educational Statistics (NCES). The

early tasks were to bring consensus to definitions, choice of sampling units, the universes for data collection, and interface with CETA.

Feasibility Study

During the summer of 1977 plans for the feasibility study were put into operation. In choosing states to participate in this study an attempt was made to provide a range of reporting abilities. Three states were to test each of the three components in the study. One of these was to be a state currently having the capacity to provide the required data; another a state which presently had data problems. The participating states by components were (NCES unpublished paper):

1. education process component: Colorado, Illinois, and Texas;
2. education impact component: Colorado, Minnesota, and Pennsylvania;
3. education finance component: California, Oklahoma, and Utah.

Wisconsin volunteered to test all three components to determine the additivity of the burden of the components.

The goals of the feasibility study were to:

1. identify operational difficulties in obtaining data from the primary source;
2. document, in detail, the process by which the specified data are obtained and the method by which difficulties were overcome;
3. determine the cost of collection of data, including both direct and in-kind costs;
4. assess the degree of reliability and validity of the collected data;
5. make recommendations for changes in the forms or reporting procedures;
6. develop record keeping standards for data not reported to the federal level.

A fourth component, evaluation and accountability, which contains the evaluation of both state and state advisory council was not tested.

Even with very detailed planning, operational problems required a series of meetings to assure intra-state coordination and this resulted in a restructuring and refinement of the forms. Beginning in January of 1978 actual data collection began with each state using their normal data collection chanels. Concurrently at the federal level the National Center for Educational Statistics staff began to reformulate reporting and record keeping requirements. The staff also made site visits and received monthly reports from the study participants. A May meeting with 41 states represented preceded an additional review by the Bureau for the Education of the Handicapped, Office for Civil Rights, and BOAE.

This then is the data system as it is put into place in fiscal year 1979. The system forms an "evaluation and accountability monitoring and management tool" (Historical Background of VEDS, unpublished document).

The Education Component of VEDS

This component records and reports data in programs, students, completers/leavers, and staff. The student records of this section will form the data base for the student follow-up in the Completer/ Leaver Follow-up Report. Only programs included in the state plan are included in this report.

The Program Enrollment and Termination Report

This report is divided into three parts. Part A provides information in occupational preparation enrollments and termination; part B provides data program emrollments and termination for when there will be no follow-up activity; part C provides data in the unstructional setting of handicapped enrollments. (NCES-2204)

Part A--Information on the six digit Office of Education code programs designed for grade 11 and above. In all cases below an unduplicated count is provided;

1. total instructional program enrollment for year;
2. sex, race, and ethnic data for all enrollments except short term adults;

3. enrollment by program level;
4. numbers of students in vocational education who are handicapped, limited English, or disadvantaged;
5. enrollment in cooperative vocational education (programs with agreement between school and employers);
6. students who complete, transfer or leave program during the year.

Part B--Occupational preparation not listed in Part A including Consumer and Homemaking, and Industrial Arts at all levels for whom no follow-up is required. An unduplicated count of the following:

1. students in secondary, postsecondary, and long term adult programs not reported in Part A (including enrollments below grade 11);
2. enrollment of students in B by race, ethnic origin, and sex;
3. report of students report in B-1 program level;
4. a count of students by special need.

Part C--Provides an expansion of data reported in item 5 of Parts A & B. This section reports whether the handicapped receives vocational education in a regular, mixed, seperate, or seperate facility setting.

Educational Impact Component

This component records data on follow-up of completers/leavers of those programs contained in Part A, section 7 of the Enrollment and Termination Report. The universe is made up on high school completers and leavers grades 11 and 12 only; of postsecondary completers and leavers, and adult completers enrolled in long-term programs.

Follow-up of employer universe is restricted to those employers of individuals in fields related to their vocational training.

Sampling is permitted to reduce costs and burden of follow-up. It is done with the approval of the National Center for Educational Statistics.

Basic information from Program Enrollment and Termination Report is needed to complete this component and includes: race/ethnic, sex, instructional programs, handicapped, limited English, disadvantaged, and level of program completion status.

Completer/Leaver Follow-up Report (NCES form 2404 &2404-7)

The Completer/leaver Follow-up Report is divided into four parts:

Part A

1. for completers only (those finishing a planned program);
2. for leavers only (completed over half of their program);
3. leavers who completed 50% or less of their program);

Part B

aggregates data by race/ethnic designation, and sex;

Part C

summarizes follow-up results of handicapped completers and leavers;

Part D

1. reports the fields of employment for the follow-up respondents (including military) in fields related to their training or employed in fields not related to their training and not pursuing further education;
2. calculation of hourly salary for those individuals employed full time in fields related to their training (either civilian or military) (35 hour week is full time).

Employer Follow-up

No set form is issued to the states. Each state is to design its own but basic data must be included verbatum. The universe for this study is restricted to those employers of students working in a field related to their training (the report is not due until November 1980). The report consists of three parts (NCES form 2404-6 and 2404-8):

Part A--findings of instructional programs;
Part B--findings by racial/ethnic origin and sex;
Part C--findings by program level and completion status.

Portions of the Employer Follow-up Form requires employed students to be rated in a scale of 1 (very poor) to 5 (very good) and compared to other employees who were not trained in vocational education programs.

Educational Finance Component

This component provides information on expenditures by instructional categories. Federal funds other than those under the Vocational Education Act of 1963 are not included. All states and local expenditures are included. These are actual expenditures, not "in-kind". Each section in the instructions for this report gives the percentage of money to be allocated for the specific area of programming as required by the Vocational Education Act of 1963.

Financial Status Report

There are six sections in Part A of this report which deals with funding by specific legislation purposes (postsecondary and adult) (NCES form 2404-2):

1. National Priority Programs (Section 110)
   a. handicapped;
   b. disadvantaged;
   c. limited English;
2. Basic grants in at least four categories (Section 120)
   a. full time sex equity personnel;
   b. vocational education for displaced homemakers;
   c. state administration;
   d. total.

In the basic grants section 13 other possible categories are listed for which expenditures may be made:

3. program improvement and supportive services (Section 130); expenditures must be reported in at least the following areas:

a. state administration;
b. guidance and counseling;
c. total;

4. special programs for the disadvantaged (state matching funds are not required)(Section 140); total instructional program costs expended are reported;
5. consumer and home economics in the following categories (Section 150):
   a. educational programs in non-economically depressed areas;
   b. ancillary services in non-depressed areas;
   c. educational programs in economically depressed areas;
   d. ancillary services in depressed areas;
   e. total;
6. state advisory council (Section 105)--no matching funds are required and only the total expenditures are reported.

Part B of this report deals with expenditures by instructional programs--wages, salaries, benefits, instructional staff, supplies, equipment, and purchase of instructional services. Data is reported by program area (Office of Education, two digit code).

Part C of this report shows the number of students served and the number of paid state and local administrative staff. There are four sections:

1. a count of students benefitting from Section 110 priority;
2. number of state and local administrative staff paid for Section 120 and 130 allotments;
3. a count of students benefitting from special funds for the disadvantaged (Section 140);
4. a count of students in economically depressed areas funded under section 150.

C. A Study of the Extent of Sex Discrimination and Sex Stereotyping in Vocational Ecucation Programs and Assessment of Methods to Reduce or Eliminate Such Inequities (USOE unpublished report, 1978)

Statement of Problem

The House Hearings of the Labor and Education Committee in 1975 identified several problems related to sex stereotyping and lack of equity in vocational education programming. For example, reports from the Office of Education showed the 72.4% of women students in vocational courses were enrolled in three areas--consumer and homemaking, home economics, and office occupations. Forms on Enrollments and Completions indicated that even when women are enrolled in the same occupational areas (or clusters) as men, many tend to be placed in the lowest paying jobs within the occupational area. Also enrollment distribution tables show a drop in female enrollment from 55.4% to 48.3% in 1975.

As a result of the House hearings, Congress took a firm stand in the Amendment of 1976 to attempt to determine the extent of inequity in vocational education and required that a study of sex discrimination and stereotyping be carried out and a report prepared. The Office of Education is responsible for the study and for the general plan of how the mandate of Congress will be carried out. Contracting evaluators will perform their tasks under the direction of at least five panels of experts and an advisory committee.

Objectives of the Equity Study

The following provisional plan is now in progress in 50 states:

1. assess the extent of sex discrimination and stereotyping in vocational education programs and develop baseline data;
2. identify and analyze the practices and activities which result in sex bias;
3. identify internal administration practices that facilitate or hinder equal access;
4. identify school practices which reduce or eliminate sex bias;
5. assess programs statistically and descriptively that have

reduced or eliminated sex bias;

6. develop criteria by which federal, state, and local administration can measure progress in reducing sex bias;
7. identify external factors such as reluctance of employers, unions, or apprenticeship programs to accept women, and analyze how schools can deal with this problem;
8. identify programs made in reducing sex stereotyping and discrimination in occupcations for which vocational education students train.

Method of Proceeding

Three basic tasks are necessary. They are interrelated and interdependent:

1. review of secondary data to develop baseline information on sex bias in vocational education;
2. review of key documents and literature for the development of hypotheses;
3. collect primary data by assessment at state and local level.

Projected Outcomes

Four reports will be made:

1. an interim report of secondary data;
2. final report on the extent of sex discrimination and stereotyping and the extent and quality of attempts to reduce or eliminate these inequities;
3. case studies of successful programs;
4. replication handbook for assessing the extent of inequity and methods of evaluation action taken to reduce or eliminate it in vocational education programs.

D. Study of Bilingual Vocational Education (USOE, Department of Labor, 1977, cost: $450,000)

The Problem

Both the Vocational Education Act as amended in 1976 and the

Comprehensive Employment and Training Act of 1973 identified persons with limited English as a special target population for training and employment efforts. A 1975 estimate of numbers of such persons over age 14 is that up to 12,715,000 may have difficulty speaking English.

Current reporting systems do not indicate the extent to which such a population is served, but in 1976 data indicated 729,439 Hispanic and 162,060 Asian students were reported to be receiving vocational training. CETA enrollment data showed that in 1976, 60,000 persons with limited English participated in their programs not including the summer program for youths (HEW (OE)78-01703, 1977).

Both the Department of Labor and the Office of Education are assessing the problem of training persons with limited English. The Department of Labor's Continuous Longitudinal Manpower Survey will produce relevant data in 1978 and will compose preprogram with post-program experiences of enrollers. A private contract will also study 47 projects for persons with limited English and will analyze program approaches to provide local agencies with models. A report is expected in 1978.

The Office of Education study which was begun in 1977 is described below.

Scope and Objectives

This study will examine the effects of bilingual vocational training on the work experience of trainees with limited English. The effects will be measured primarily in changes in employment status and earnings.

The objectives of the evaluation as drawn from the Congressional mandate are:

1. determine characteristics of the trainees with limited English in vocational training;
2. determine labor market outcomes for these trainees;
3. ascertain satisfaction of trainees with their instructor;
4. assess whether, and to what extent, bilingual training alleviates occupational skill shortages;
5. determine the practices and procedures for such training;

6. analyze the training operation and relate it to the effectiveness of the program.

Design and Methodology

Sampling techniques will be used with 1,000 limited English speaking trainees selected from the 267 bilingual vocational training classes. Of these, 136 classes meet the requirements and will be randomly sampled. The sample universe will be in 14 states with heaviest concentration in California, New York, Massachuetts, Florida, New Mexico, and Texas.

Student data will include demographic and socio-economic characteristics, national language, and occupational skill area. Program and class operational information will include the numbers and proportions of classes that:

1. offer various types and intensities of skill training;
2. enroll the various language groups of trainees;
3. require or offer English as a second language (ESL) instruction;
4. use bilingual instructional materials;
5. provide job placement services;
6. provide bilingual instructors and aides.

Also, class size, language, sex composition, and entry and exit policies will be studied.

Pre and post-training measures of labor force participants in employment, and wages will be collected from employees during training and about ten months after training. The effects of bilingual vocational training will be measured by changes in the following variables:

1. labor force participation;
2. labor force participation rates;
3. employment status;
4. employment rates;
5. job earnings;
6. occupations;
7. entry into additional training or education.

E. National Study of Vocational Education Systems and Facilities (Westat, Inc., 1978)

Purpose and Objectives

The purpose of this study was to secure information about the organizational characteristics and operating policies and practices of agencies and delivery systems providing vocational education (Executive Summary, 1978).

At state level the study sought to identify agencies having the responsitility for vocational education and the location of those agencies in the state education system. Also, the study examined the relationship between agencies in regard to planning and coordination of vocational education program development, and the control and expenditure of Vocational Education Act funds.

At local level the study sought to provide information on organization and governance of local vocational education; and the operating chatacteristics of these programs, especially shared-time and inter-institutional arrangements which impact on use of vocational education facilities.

The overall objectives as stated were:

1. describe the organization and governance of state and local agencies and delivery systems for vocational education;
2. describe provisions by which capital and operating costs of vocational education are funded;
3. describe status and condition of the nation's vocational education system in terms of capacity, services, accessibility to students, and the adequacy of facilities.

Recognizing that existing state legislation and policy significantly affects the expenditure of federal vocational education funds, it became an objective of this study to document, in a general rather than specific manner, the provisions under which state funds and federal Vocational Education Act Basic Grant Part B funds are expended for facilities, construction, equipment acquisition, and basic instructional program support.

Methodology

Two procedures were used for gathering data:

1. interviews were conducted with state directors of vocational education and with the executive officers of other state agencies having responsibilities for the educational system in which vocational education was provided;
2. a mailed survey, with telephone follow-up, was sent to all public secondary and free-standing two-year postsecondary institutions with facilities for five or more different vocational education programs.

The interviews sought information on organization of the state's vocational education delivery system, governance of vocational education programs at state and local level, and the provisions under which both capital and operating costs were funded.

The survey obtained information about institution size, facility resources, age, condition, type of region served; also operating characteristics of their programs, and factors related to planning and evaluation of programs and facilities.

Data were obtained from 95% of the institutions included in the study universe. As a result of the interviews and documentation from the state agencies, a "profile" report of each state was compiled.

Findings

At state level the study found many variables which would have a potentially significant impact on the extent to which the "sole state agency" could effectively implement federal program initiatives and/or resources. The study disclosed ten different categories of board structures having different composition and differing levels of authority. It also showed that five different classes of administrative units have varying degrees of authority for vocational education both within the agencies of which they are a part and in other agencies having vocational education responsibility. In terms of state agency authority over local institutions, the study showed five different levels of authority.

At local level even greater diversity existed with six different types of institutions; four different classes of single and multi-district services; and 13 different types of program administration structure. In addition, many students are served on a regional basis. Here also there was much variation with eight educational agency types; five different classes of board composition and an equal number of relationships with participating agencies; and six different fiscal arrangements for funding. (Extensive use of tables in the Executive Report add clarification to these different structures.)

Financing

Four primary sources of financing were found: local revenues, state general education revenues, state vocational education revenues, and funds allocated under the federal Vocational Education Act. Of these, "the funds under the direct control of the state agency generally do not represent the major source of vocational education support; and even when they do, the state agency generally has little discretion in the manner in which they are expended".

Generally there are different provisions which apply to the allocation of funds from each source. These differences together with the great variation in the administrative structure of programs described above may impact on program effectiveness and should be considered in studies of program and policy effectiveness.

Facilities

The study looked at both institutions and instructional stations in terms of the populations they could be expected to serve. Findings were that both institution/population and station/population ratios are significantly higher for medium cities, small towns, and rural communities than for the central cities and schools of larger urban areas.

In a section of "conclusion and recommendations" two major concerns were again stated:

1. the differences in organization, governance, and financing of vocational education systems in 56 states and territories are

likely to have significant impact on the way in which federal policies are implemented;

2. provisions of federal legislation relating to the manner in which funds are to be distributed do not inherently assure the most efficient use of such resources.

The effectiveness of federal support of vocational education could be improved, it was believed, by an examination of the relationships which exist between federal requirements and existing state policies, practices, and statutes.

III. Evaluation of Vocational Education by the National Institute of Education (NIE)

The NIE study of vocational education is a response to the mandate of Section 523 (b)(1) for a study which would examine:

A. the distribution of vocational education funds;

B. how to achieve compliance with federal laws;

C. the means of assissing program quality and effectiveness;

D. the effectiveness of consumer and homemaking education programs funded under the 1963 Vocational Education Act.

Four million dollars were earmarked for a four-year effort to provide the information necessary for consideration of new vocational education legislation in 1982. A detailed "Plan for the Study of Vocational Education" was transmitted to Congress by NIE on December 30, 1977 and a status report issued in December 1978 updates progress toward implementation of that plan.

Summaries of information available on NIE's evaluation task will be reported in this study. This information has come from NIE requests for proposals, from several proposals submitted by contractors, and from reports, and memorandum of the Office of Education, and the National Center for Research in Vocational Education.

"Since the bulk of the work on the study is to be conducted extramurally, the preparation of four Requests for Proposals (RFPs) constituted the first major step in translating the plan into reality. These RFPs dealt with the four key parts of the study noted above. Thus, one centered on the distribution of funds; the second, for reasons of economy of effort, combined the research on issues of compliance and evaluation; the third and fourth RFPs focused on consumer and homemaking education (C & HE) issues--one on the responsiveness of state and local systems to the intent of the legislation and the other on the effectiveness of the C&HE programs offered.

The RFFs were published in April 1978 and contracts were awarded five months later for the following three substudies: (1) Descriptive Study of the Distribution of Federal, State, and Local Vocational Education

Funds; (2) Studies of State and Local Administrative, Compliance, and Evaluation Practices for Vocational Education; and (3) the Responsiveness of the Consumer and Homemaking Education Systems. The RFP on the effectiveness of C&HE programs was cancelled without an award being made. A different approach to treating the subject, as will be seen, has been adopted. A fourth small substudy which will contribute to an understanding of the capacities at the state level to meet the evaluative requirements of the 1976 legislation was arranged for earlier by modifying a contract already entered into by the U.S. Office of Education" (NIE, 1978).

A. Descriptive Study of the Distribution of Federal, State, and Local Vocational Education Funds (Benson, 1978, budget: $850,000)

This 36-month study was awarded to the University of California at Berkeley. It undertakes three major tasks:

1. consolidation of valid extant data into a single computerized data bank;
2. analysis of state distribution systems;
3. description of the distribution and utilization of funds in a sample of institutions.

The analysis of state distribution systems will proceed in three steps, beginning with a national survey of state documents on distribution to collect descriptions of procedures and to assess the availability of data needed for the subsequent analysis. State systems will be analyzed for differences in internal structure, in external conditions faced in allocating funds, and in the outcomes of the allocation procedures. The second step consists of an analysis of interstate and intrastate spending differences in those states for which full information is available, based primarily on multiple regression analyses using such variables as district size and wealth; percentage of poverty-level students, handicapped students, students with limited English speaking ability, and minority students; the district high school drop-out rate, unemployment rate, and density; and state and federal aid per FTE vocational student.

The third step is an analysis of changes in local spending with reference to changes in federal aid and allocation requirements. This analysis will be limited to examining time series impacts, hopefully over at least four years, in up to ten states, depending on the quality and availability of data.

The description of fund distribution and utilization in a sample of institutions will be based on a set of research hypotheses and a field survey, the instruments for which will be developed through a three month study of the four states with some of the best vocational education data systems. Information to be collected includes vocational expenditures; federal, state, and local vocational and non-vocational expenditures; total, program, course, and FTE enrollments, student completion ratios, and area unemployment, by sex, race, and age; breadth of course offerings; participation in programs by the disadvantaged and handicapped; class size and over or under-utilization of facilities; industrial composition of the area and efforts to relate pace and content of vocational training to formal on-the-job training; and employer and employee views on the success of placement. A set of workable allocation measures will be developed from the survey by considering the distribution of program expenditures relative to industrial composition of the state; the distribution of services relative to the tax base of the institution; changes over time in relative emphasis given to vocational education locally; program access in terms of sex, age, and ethnic status; gross quality defferences between programs; use of staff and facilities; and correspondence between form and content of vocational training and formal on-the-job training.

B. An Analysis of State and Local Compliance and Evaluation Practices (Royster, 1978, budget: $611,000)

This study will examine state and local compliance with the 1976 Amendments in both letter and spirit, the factors which affect compliance, and alternate means of achieving it. Evaluation will be considered within the research framework for compliance "on the assumption

that (1) the compliance study will be more thorough because of the more detailed data obtained on conformity with the evaluation provisions of the legislation and (2) the evaluation study will be enriched because the results of that study can be interpreted in the context of compliance and implementation with all of the legislation" (Royster, 1978). This research framework includes an analysis of the means of evaluation, examination of the criteria involved and how conclusions from those criteria are incorporated into vocational education, and collection of information on the uses and effects of such criteria. Conclusions of this aspect of the study will compare criteria actually in use with those specified in the 1976 Amendments, assess the adequacy of evaluation methods and whether they are used in program improvement, and will detail how the various federal requirements for evaluation relate to eachother and to program quality.

A 15 state sample will be taken from a matrix based on region and extent of State Board responsibility. Ten states will be examined for compliance and all fifteen for evaluation. Four districts will be chosen within each state, one each central city, other metropolitan and non-metropolitan, and a fourth one from whichever of those categories predominates in the state. Secondary schools will be classified as comprehensive high schools, vocational high school, vocational centers, or area vocational schools and will be sampled within each district on a rotating basis by those classifications. Data will be collected from state education and vocational education administrators, including those in charge of sex equity programs and minority affairs, officials in charge of evaluation, and state education association and/or union representatives. Local respondents will be school personnel, school board members, union and other organization leaders (women's, minority and handicapped groups), large employer personnel officers, PTA chairpersons, feeder school administrators and counselors, and prospective employers as well as vocational educaiton administrators, program directors, and counselors. Ten to twenty students will be sampled from each school by student and training types, and courses will be sampled from the 45 largest programs nationally.

With regard to evaluation specifically, published materials on both state and local evaluations will be collected, and information gathered informally during the first year to prepare specific agendas for the data collection efforts at each school and agency. The second-year data collection effort will "gather additional data on the quality characteristics of evaluations" (Royster, 1978), using both informal interviews and standardized data collection instruments. The data gathered will be directed toward describing the planning, implementation, organization, and administration of evaluation in both state and local education agencies; the changes in evaluation procedures since the 1976 Amendments; how evaluations are used by the state and local officials and teachers; and if they are not used, why not?

Analysis will be in two phases. In Phase I extensive field notes will be compiled into individual case studies through a standardized analysis procedure. From this a data base will be developed to yield an extensive cross-site summary through graphing, ranking, development of typologies and similar techniques. Phase II will consist of a longitudinal extension of Phase I and a more quantitative treatment of the data gathered, extending variable specification and coding schemes to include all possible factors.

An analysis comparing the 1976 state and federal plans with subsequent ones will examine whether state and federal evaluation systems are effectively assessing compliance, asking whether evaluation took place, was limited to mandated criteria, was used in program improvement, and whether the overlapping mandated evaluations help or hinder vocational education program improvement. This analysis is expected to yield conclusions on the workability of the mandated administrative structure in carrying out the evaluation responsibilities assigned undet the Amendments of 1976.

C. A Study of the Responsiveness of the Consumer and Homemaking Education System (Hamilton, et al, May 1978)

This study deals with the "responsiveness" aspect and is primarily concerned with who participates, what is being taught, with the inno-

vativeness of programs to meet needs in today's society, and with C&HE's ability to serve those with special needs both in the classroom and through outreach. The study is also concerned with the "spread of effect" of ancillary services provided through exemplary and innovative programs, curriculum development and improved methods and techniques both in teaching and administration. A third concern is to come to some conclusions as to what changes, if any, would be associated with improvement.

This study discusses the vast societal changes which have occured since the 1917 Smith-Huges Act placed home economics in the school curriculum. It states, "it is the responsibility of relevant education programs to undergo constant revision of content, methods, and approaches to meet and deal with changing needs, values, conditions, and technilogical levels of a dynamic society". The study will address "responsiveness" both to societal change, and to the intent of Congress in the 1976 Amendments. The intent is concerned with elimination of sex stereotyping and a move away from vocational home economics toward emphasis on the combined wage earner-homemaking role.

Goals and Objectives

Specific goals of the study are:

1. to evaluate whether C&HE is adequately providing the range of services to the range of people that Congress intended;
2. to determine if the system is effecting change rapidly enough and thoroughly enough to be considered responsive to legislation.

The objectives of the study are stated as questions.

1. Are those responsible at federal, state and local level carrying out the intent of Congress in C&HE programs with regard to who is served and served with a program that meets national, region, and local needs?
2. What in the present system should be continued in order to assure continued progress and responsiveness? What needs to be changed?

Gaining insight into responsiveness entails looking at the three levels of administering and operating C&HE programs and eliciting "over lapping or cross-validating information". At the federal and state levels

leadership, monitoring activities, technical assistance, and allocation of funds will be examined. At local level in school programs the characteristics of participants (service to males, low income, bilingual and others with special needs), enrollment changes, content and curriculum changes since 1970, responsiveness to coping skill needs in society, outreach, and the congruity of classroom activity with objectives will be studied.

Design and Methodology

A three phase design has been chosen and procedures for data collection, and time scheduling has been determined.

Phase I is a pilot test of methods and measures for evaluation responsiveness at federal, state, and local levels. This phase will be completed in 1979.

Phase II will focus on federal and state administrative levels and will involve study of a minimum of ten states. This phase is to be completed in 1979-80.

Phase III will study at least five local sites within each of the above ten states, intensively examining responsiveness in terms of who is eligible, who is participating, content of courses, classroom experiences, and other variables. The timetable for this phase is 1980-81.

The states to be studied will be selected to give variation in rural/urban character, region, per pupil expenditure, proportion of eligible learners enrolled, male enrollment and other variables. At the local level a two-tier sampling plan is suggested for use. The first tier would be a sample fo five high schools, and the second tier will begin with all related C&HE related programs in convenient travel distance. Together these tiers will be regarded as a "sampling unit" and will include postsecondary, elementary, adult, junior high, outreach, and others.

Data collection at the local level will be performed by a four person team consisting of:

1. a team leader trained in field work;
2. a volunteer from the vocational eduation or C&HE community such as a chairman of the local advisory board, a teacher educator, or a regional supervisor;
3. two local volunteers such as an officer of a major community group (League of Women Voters, Parent Teachers Association) who will have knowledge of local conditions and needs.

This proposal contains much detail as to the methodology to be used at all three levels, and in each phase--including the innovative use of volunteers in data collection. The main analytical tool to be employed is discrepancy analysis. The data will be obtained in the form of "open-ended responses to semi-structured data collection instruments".

Phase I of the study will be preceded by an information search addressed to three major areas: research design, C&HE education, and administration of C&HE at all levels. The search of C&HE education will include extensive use of journals and professional literature in the field.

Additionally, the research team will work throughout the study with an advisory panel composed of five men and women. The membership of the panel will include persons with home economic and research skills, practical program experience, knowledge of legislative intent, experience or knowledge of government and its inter-relationships, and sensitivity to the needs of special groups--youth, school-aged parents, the aging, and men and women as wage earners and homemakers. The panel is to "keep the project on target, not allowing an unintended emphasis or unintended direction to mar research in progress".

D. Additional Substudies

A number of smaller related substudies are also being contracted by NIE.

1. The Effects of Vocational Education on Participating Students (NIE #R-79-0002, 1978, estimated cost: $120,000)

The 1976 Amendments specify two criteria for study of the effects of vocational education programs on students--students finding employment in fields related to their training; and employer satisfaction with their on-the-job performance. These are both "short-term" impact criteria and do not address the broader questions of long range and more general effects.

Purpose and Description

The project will review existing studies of the effects of vocational education and will reanalyze available survey data to learn more about long-term and short-term outcomes of both secondary and postsecondary vocational education. In Phase I an independent synthesis of reports of outcome studies since 1968 will be made. Simultaneously in Phase II a determination will be made of the propositions to be examined, data to be mined, analysis methods, and who should do it. A later portion of the study, "Task C", will be carried out only if the existing studies being analyzed provide useful data.

The prime interest of the research will be to discover to what extent participation in vocational education produces different outcomes than alternative curriculum.

Methodology

Longitudinal studies offer the greatest opportunity for the secondary analysis which is to be used. The studies designated for use in this project are: Project Talent, National Longitudinal Survey of Labor Market Experiences, National Longitudinal Study--Class of 1972, Parnes (NLS) Survey, and Youth in Transition. Two tasks have been designated for the first and second phase:

Task A Review and Synthesize Effects

Researchers will gather information and outline the plan. Their review should include:

1. economic factors--earnings, occupational mobility, employment ability;
2. educational factors--competency, functional literacy, drop-out rate;

3. social factors--social mobility, satisfaction, and citizen participation.

After reviewing the studies an organizational structure will be developed to summarize the results and assess validity and generalizability of findings. The final report will synthesize the findings and suggest policy implications.

Task B Prepare a Plan for Analysis (potentially to be done in Task C)

1. Develop propositions to be examined--the arguments for and against federal support for vocational education will be examined and a set of propositions developed to reflect concerns of federal and state policy.
2. Review longitudinal studies of education and labor market outcomes and choose those which potentially substantiate the propositions.
3. Examine the variables and select a set for analysis and suggest means to reduce definitional ambiguities. The certainty with which participants can be identified and isolated from learners in other programs is of primary concern. Cross-validation and variables common to many data sets are another necessity.
4. Design an analysis plan for each of the surveys chosen. The design plan must begin with the proposition (1 above) search for ways to illuminate it, and also work backward to discover what is revealed about policy.
5. Consider a synthetic cohort analysis. Can data be combined for analysis?
6. Determine which data merit further analysis.
7. Produce an outline and final report.

A comment made by a memorandum from BOAE on this study is en lightening--"The major outcome of this research effort, may be to demonstrate to Congress the complexity of assigning weights and constants to a variable (vocational education) which is not constant (HEW,USOE, November 1978).

2. State of the Art Review of Vocational Education Evaluation (Smith, 1979, estimated cost: $35,999)

This study is being done by Contract Research Corporation Education and Human Development, Inc. over and two and one-half year period and will review the literature on evaluation and examine how states are meeting the 1976 evaluation requirements. The study was begun in April 1978 with interviews with state evaluators at the BOAE Conference on Evaluation in Vocational Education in Denver, Colorado. Through further telephone interview and study of state documents a comprehensive description of evaluation in all 50 states was prepared. Each state summary contains the purposes, structures, procedures, and potential uses of evaluation.

The next stage of the study will be conducted during fall 1979 and will consist of in-depth studies of evaluation procedures in 15 states. A conference of state directors will be held in fall 1980 at the end of the study to discuss progress in evaluation and the problems which have arisen, and particularly whether evaluation is the best approach to program improvement or whether there might be better alternatives.

3. Meeting the Special Needs of Special Groups

"The purpose is to assess how and to what extent educational and occupational needs of special groups identified in federal vocational and related legislation are being met. It is designed to:

1. clarify the objectives of existing legislation;
2. identify the strategies adopted at state and local levels in order to realize those objectives;
3. describe the resources deployed in implementing those strategies;
4. determine to what extent the objectives are being achieved and, consequently, the needs are being met.

This study will review the history of this aspect of federal vocational education policy. The concern with providing vocational education services to special needs populations, prominent in the 1968 amendments

to the Vocational Education Act of 1963, appears in the increased funding set-asides in the 1976 Amendments, as well as in various committee reports.

Special needs groups are identified in at least two ways. First, they are represented by specific set-asides in the legislation, such as handicapped persons, the disadvantaged, persons with limited English speaking ability, and Indians. Second, special needs populations also consist of those groups whose needs are to be met by programmatic provisions in the legislation dealing with bilingual education, sex equity, and equal opportunity of access to vocational education. Since the legislation is to provide vocational education services to those groups for whom need is the greatest, the definition of special needs populations should, perhaps, not be inflexible in order to accommodate groups so viewed from a local perspective.

Other substudies will provide will provide information on the flows of funds to special needs groups, on compliance with set-aside provisions and on the availability of programs and services. However, the primary emphasis of the substudy will be upon a series of community case studies. The communities selected will be characterized, among other attributes, by relatively low family income levels, high youth unemployment, and concentrations of minority populations. An effort will be made in learning about the objectives, strategies, and resources deployed to find out how such populations are identified on the local level and how funds are being spent on what kinds of educational, training, and related services for those identified groups. Also to be examined will be the counseling services provided for special needs groups and how such services relate to future job placement. The inquiry will cover the extent to which, in addition to vocational education services, the needs of special groups are also being met through programs conducted under CETA, vocational rehabilitation, and handicapped legislation. This will permit a judgment on the extent to which there is a fit between federal intent and local delivery of services.

This 22-month study is scheduled to get under way early in 1979. The first year will be devoted to refining the issues, providing information from other sources, and preparing for the case studies. Data collection at the community level will occur early in 1980, and the final report is to be completed by October of that year."
(NIE, 1978)

IV. The National Center for Research in Vocational Education (NCRVE)

Section 171 of the Vocational Education Amendments of 1976 declared that "a national center for vocational research" be chosen every five years. The duties of this center are to:

1. conduct applied research and development on problems of national significance;
2. provide leadership development through advanced study and in-service training for state and local leaders;
3. act as a clearinghouse on state contracts and Commissioner's contracts;
4. develop methods of evaluating programs.

The Center for Vocational Education at Ohio State University was named National Center for Research in Vocational Education during the first five-year period. The production of the Center in tools and methods for evaluation in vocational education, which are reviewed in this document are listed below along with their publication date (abstracts or short summaries of the studies, handbooks, and papers will be found in this section in the order listed):

Studies and Projects:

A. "An Investigation of the Correlates of Placement in Vocational Education" 1979;
B. "Examining Vocational Education Outcomes and Their Correlates" 1979;
C. "Interpreting Outcome Measures in Vocational Education" 1978;
D. "National Academy for Vocational Education Evaluation" 1979;
E. "Providing Technical Evaluation Assistance to State Education Agencies" 1979;
F. "Evaluation of Vocational Education: Roles, Responsibilities, and Responses of State and Federal Agencies" 1979;
G. "Specification for Longitudinal Studies of Former Vocational Education Students" (a concept paper, to be published).

Five Small Scale Studies in Experiential Education (to be published)

A. "A Provisional Typology of Esperiential Education Programs";
B. "Preliminary Investigations of the Impact of Participation in Experiential Education in Work Settings on the Relations of Youth with Peers and Adults";
C. "Preliminary Investigations of the Retention Roles of Selected Concepts Resulting from Students Enrolled in Courses Which Provide an Inschool and Experiential Learning Option";
D. "Study to Investigate the Overlap of Experiential Education Program Culture with the School System Culture and Work Culture";
E. "An Exploratory Study of the Impact of the Expectation of Various Participants in Experiential Education Programs".

Handbooks

A. "Evaluation Handbook: Guidelines and Practices for Follow-up Studies of Former Vocational Education Students" 1979;
B. "Vocational Education Measures: Instruments to Survey Former Students and Their Employers" 1978;
C. "Evaluation Guidelines and Practices for State Advisory Councils" 1979;
D. "The Case Study Method: Guidelines, Practices, and Application for Vocational Education Evaluation" 1980;
E. "Assessing Performance Skill: Guidelines and Practices for Vocational Education" 1980.

Monographs and Papers

A. "Data Sources for Vocational Education Evaluation" 1979;
B. "Impact Evaluation in Vocational Education: The State of The Art" 1979;
C. "Longitudinal Methods as a Tool for Evaluating Vocational Education" 1979;
D. "Needs Assessment for Program Planning in Vocational Education" 1979;
E. "Use of Evaluative Data by Vocational Educators" 1979.

A. An Investigation of the Correlates of Placement in Vocational Education (to be completed 1979, cost: $797,290)

Problem Statement

This study is concerned with identifying those factors that affect placement rates in local programs of vocational education. This is a critical question facing local communities as they plan for new programs and as they attempt to improve existing programs. It is a critical question for local, state, and federal officials as they make policy and funding decisions about vocational programs. For most effective management, leaders in vocational education must have access to information revealing those factors which contribute to higher placement rates for local programs.

Objectives

Research hypotheses will be formulated concerning variables affecting placement rates for former students of vocational education. Those variables which tend to be associated with placement rates for former students of vocational education will be identified.

A final report on the findings and conclusions was to be available January 31, 1979. A second report reflecting further findings of the case studies will be available June 31, 1980.

Procedures

Basically three procedures will be used to study the problem area:

1. An extensive review of existing efforts to identify factors affecting placement rates of vocational education programs will be conducted.
2. Based on the potential variables identified in the literature review, a correlation study will be conducted on data obtained from five local vocational program sites in each of seven states (35 sites total).
3. A case study of each of the 35 sites will be conducted. The case studies will include interviews with individuals who are responsible for, knowledgeable about, and affected by the local vocational program, e.g., students, teachers, and employers.

Data obtained from the case studies will be incorporated into the correlation study and hypotheses generated by the case studies will be developed for later research.

Accomplishments and Impact

An extensive review of the literature concerning factors associated with placement will be conducted and a summary of the literature review will be included in the deliverable. Variables associated with high placement rates of former vocational education students will be identified through the correlation study and research hypotheses concerning the placement rates of former students of vocational education will be formulated.

The study will provide information which has potential for impacting on:

1. federal legislation;
2. federal, state and local vocational education policy;
3. federal, state and local resource allocation; and
4. strategies devised to plan and evaluate vocational education programs.

B. Examining Vocational Education Outcomes and Their Correlates
(to be completed January, 1980, cost: $214,915)

Problem Statement

Research and evaluation studies have not produced a substantial body of documented knowledge concerning the outcomes of vocational education. Analyses and discussions dealing with outcomes are often ambiguous and excessively narrow in purview. There is a lack of consensus regarding which outcomes are most appropriate for use as criteria in evaluating vocational programs. Improved procedures are needed to generate evaluation studies of higher quality and greater credibility.

Objectives

Procedures for evaluating vocational education programs will be

developed and pilot tested in terms of selected outcomes. The operationalized outcomes with appropriate audiences in vocational education and other fields will be validated.

Procedures

The objectives of this study will be pursued by:

1. developing procedures for evaluating vocational programs in terms of certain specified outcomes;
2. pilot-testing (in collaboration with SEA evaluation staff) one or more of the operationalized outcomes;
3. consulting relevant audiences both within and outside vocational education to validate the operationalized outcomes; and
4. producing a report on activities and accomplishments related to this objective of the study.

Accomplishments and Impact

The vocational education community will have a small set of operationalized outcomes, one or more of which will have been pilot-tested, for use in evaluating vocational programs. Information on the validation of these outcomes and procedures by vocational educators and other audiences will also be available.

Achievement of the objectives of this task can contribute significantly to improved evaluation practices and a corresponding expansion of knowledge concerning the actual consequences of vocational education. This can lead to wiser decisions regarding program design, program management, and educational policy.

C. "Interpreting Outcome Measures In Vocational Education"
(1978, cost: $149,500)

Problem Statement

Interpretability of vocational education outcome data has been a persistent problem due to lack of common definitions, and communication and handling procedures. Particularly there is lack of documentation

in the processes used to collect job placement data.

The outcome data terms most troublesome due to definitional problems are:

1. the vocational student;
2. relatedness of training to employment
3. job performance (employer's view)
4. job satisfaction (former student's view)

In the cases of "vocational student" and "relatedness" problems seem to stem from seemingly inconsistent and incomplete use of these terms as used by state and local education agencies. The "job performance" and "job satisfaction" problems, on the other hand, seem to arise from lack of measurement tools and processes.

Objectives

To try to determine the effects of inconsistent uses of "vocational student" and "relatedness" on interpretability, and to begin to understand the complexities of measuring "job performance" and "job satisfaction" the following objectives are set forth:

1. verify inconsistent usage of the terms "vocational student" and "relatedness" among local and state agencies;
2. determine how different definitions of the above terms might effect the interpretability of data;
3. synthesize current literature and approaches measuring "job satisfaction" and "job performance";
4. prepare a handbook on vocational education measures, position papers, a national conference, and retain contact over time with agencies to whom this study could be of benefit.

Operation and Methodology

The first procedure was an attempt to locate a data base to allow investigators to vary the definitions of "vocational student" and "relatedness" to demonstrate what might happen to placement rates. However, due to the fact that students have not generally been classified fully by USOE program codes, with specific information on length of training, and current occupation, as well as other inherent informational difficulties, it was not possible to identify an existing data base. Instead

a case study method was chosen in selected states and local education agencies to identify reasons for the wide discrepencies in placement rates reported by states. Organizational structure, attitudes toward evaluation, definitions, processes, operation of the placement service, and utilization of placement data were all examined in the case study.

Five states were selected for study. Two of these had high job placement rates (identified in this study as States A and B); two had low placement rates (identified as States D and E); and one state was near the median of all states (identified as State C). Selection also took into account region, urban/rural character, population, and size of state vocational education staff, and proximity to the state vocational education agency. Personnel were interviewed in the five state vocational education agencies, two local vocational education agencies, and in the Office of Education.

Conclusions

"Personnel at all levels within all five states viewed the collection of placement data as primarily a compliance effort" (Executive Summary, 1978). Interviews at the federal level also believed that state data were being collected primarily as a compliance effort, and there seemed to be consensus that collecting data primarily in response to a mandate weakens the incentive of the personnel involved. State agency personnel interviewed believed that such data could be used for program improvement, and that greater effort could be made to use the data. Under existing conditions of inconsistent use and with compliance as the major impetus, placement data were not collected systematically with emphasis on precision and accuracy. In all states except State E, which monitored its data collection process, only minimum monitoring or evaluating of data collection was done.

Interviewees in all states and at federal level expressed concern for the reliability and validity of the placement data. There was much variation in the processing of data once collected, with variations from use of hand calculators to use of data processing equipment. Only State E had specific financial resources for follow-up. Thus, lack of

funding severely limited employment of qualified personnel, conducting of inservice workshops and other methods to improve data quality.

The findings of the study suggest that users of placement data should be aware of original sources, definitions, and the fact that in many cases data have not been verified. Users of this data should not automatically fault a vocational education program solely on the basis of placement rates.

D. National Academy for Vocational Education Evaluation
(to be completed 1980, cost: $68,314)

Problem Statement

To extend the vision, expand the intellectual capitol, and increase the competence of local, state and national leaders in vocational education, the leadership development function of the National Center has developed and now operates the National Academy for Vocational Education. The purpose of the Academy is to capacitate more fully and motivate key actors responsible for the development and improvement of vocational education throughout the nation. It will provide an opportunity for leaders from a broad range of institutions, public and private, to satisfy their leadership development needs. The institutions will benefit from the research and from having staff exposed to innovative practices that will improve vocational education. To improve future programs and more effectively meet target audience needs, an evaluation of Academy activities has been assigned to the evaluation function to assure "third party" objectivity.

Objectives

Planning organization and delivery of Academy programs will improve. The overall relevance quality, and efficiency of Academy programs to more effectively meet target audience needs will be assessed.

Procedures

Specific objectives of the third-party evaluation are:

1. to plan and conduct formal evaluation of Academy activities;
2. to prepare and produce final reports of each evaluated Academy activity;
3. to prepare and produce a summary evaluation report of the National Academy.

Accomplishments and Impact

The evaluation results will provide input to improve Academy programs which will more effectively meet the needs of the target audience.

Leaders from a broad range of institutions and agencies will have benefitted from the opportunity to satisfy their leadership development needs. The institutions represented will benefit from the research and exposure of staff to innovative practices. The ultimate impact will be the improvement of vocational education throughout the nation due to extended vision and increased competence of local, state and national leaders.

E. Providing Technical Evaluation Assistance to State Evaluation Agencies
(to be completed February 1979, cost: $293,676)

Problem Statement

A selected group of state directors of vocational education, during their annual meeting in 1978, identified evaluation of programs for special needs groups as a high priority problem in the states represented. Evaluation of special needs programs was found to be a major problem in the four states participating in the first year of the technical assistance project. The Education Amendments of 1976 stress service to special needs populations. The National Center is putting special emphasis on assisting vocational education to meet its obligations to these individuals.

Objectives

The major objective of this project is to provide technical assistance to four states directed at improvement of the evaluation of programs and services for special needs populations.

The performance objectives in terms of product are increased ability of the participating states to:

1. determine accessibility of programs to special needs populations;
2. identify services provided to special needs populations;
3. determine outcomes of programs for special needs populations;
4. relate outcomes to services provided.

A major product of the task will be a case study of providing technical assistance in evaluation of programs and services for special needs populations. This product will first be an analysis of an explanation of each problem, some suggested alternative solutions with advantages and disadvantages of each, and recording of the results of the solutions adopted. The second part of the case study will outline the experiences encountered in providing technical assistance.

Procedures

Procedures in this task will consist of:

1. selecting four states to participate in the project (States in year one will be contacted first. If any decline, alternate states will be selected on original criteria. Memoranda of understanding will be executed.);
2. providing technical assistance in evaluation for special needs populations (States ability to determine accessibility, identify services and measure outcomes for special needs populations will be determined. Problems emerging from this analysis will be studied and solutions sought.);
3. developing prioritized list of evaluation needs for special needs populations (List of needs will be developed from state analysis selected. State directors and other staff will be asked to prioritize this list.);
4. providing strategies for evaluation system modification (After a literature search participating states will be asked to identify outcomes for special needs populations. Attempts will be made to relate services to outcomes and changes will be recommended.);
5. developing procedures for self-analysis of the state evaluation system (A list of essential characteristics of an evaluation

system will be developed. Measurement indicators will be developed. States will be assisted to construct a profile of their evaluation system);

6. preparing final report (A final report on experiences in providing assistance and solutions to evaluation problems will be written, reviewed and printed.).

Accomplishments and Impact

The outcomes to be achieved will be an increase in the four participating state knowledge of its effectiveness in serving special needs populations. This increased awareness could potentially result in improvement of services and programs for these groups. In addition, this technical assistance effort can be one mechanism for delivering the knowledge, experience, and cumulative findings of the National Center to the field. The technical assistance team can in turn relay information and concerns from the field back to the National Center staff. Results of and reactions to the products produced and additional research and developing needs can also be transmitted.

States will have a clearer understanding of their effectiveness in serving special needs populations. This should result in changes which will improve services to these individuals.

F. Evaluation of Vocational Education: Roles, Responsibilities, and Responses of State and Federal Agencies
(Education Commission of the States, 1979, cost: $20,000)

Purpose of Report

This report was prepared to examine the many evaluation activities mandated under the Vocational Education Amendments of 1976, and to provide an overview of the requirements of the various agencies charged with responsibility to evaluate vocational education. Evaluation as defined in this report is "any on-going effort that elicits information about vocational education for the purpose of documenting, improving,

clarifying, understanding, or determining the worth of vocational education.

Procedure

The evaluation provisions of P.L. 94-482 and the related regulations were reviewed to determine which groups were assigned responsibilities. The Congressional Record committee and hearing reports were analyzed and comments obtained from those who helped write the amendments.

Extensive data gathering consisted of contacting all state directors of vocational education for materials on their evaluation activities. Analysis of these materials was followed up with telephone interviews with state directors or evaluation personnel. Other interviews were conducted with directors or staff of other specified groups or agencies by phone or in person.

The report contains four parts and an appendix:

1. background information on evaluation and the Vocational Education Amendments of 1976;
2. an overview of evaluation activities along with other review of groups and services related to evaluation;
3. a final section of impressions, reflections, and observations;
4. summary.

In an epilogue, a report is given of a Round Table Conference on Vocational Education held in January of 1979, hosted by the National Advisory Council. This section contains a synopsis of two days of discussions by a small informed group consisting of several state directors, state and national advisory council, state evaluation directors, and two staff members of the Education Commission of the States. Participants shared their concerns about evaluation under the Amendments of 1976, and formulated recommendations.

Description of Report

The groups or agencies given explicit responsibilities for evaluation under the Amendments of 1976 are:

1. state boards;
2. state advisory councils;
3. the National Advisory Council;
4. the Bureau of Occupational and Adult Education;
5. the United States Office of Education;
6. the National Center for Educational Statistics;
7. the Office of Evaluation and Dissemination (formerly the Office of Planning, Budgeting, and Evaluation) United States Office of Education.

The report takes each of the above groups or agencies in turn and discusses their evaluation duties under the Amendments of 1976 from four points of view. The legislative basis--appropriate sections of the law are quoted directly; assumptions and expectations--the background of each agency is described as is also their past performance in evaluation; approach and activities--description of the manner in which the evaluation responsibilities are being carried out; problems--difficulties and barriers encountered by the agency or group.

In a summary statement of some of the fundamental problems which seem to have emerged the following points are made:

1. Many state boards feel they are being asked for too much too soon. There are difficulties of clarification, incentives, and questions of whether the methods used for evaluation will lead to program improvement.
2. State advisory councils find incompatibility in their roles since they must simultaneously be both advocate and critic. They believe they need the power to evaluate or assess if they are to give good advice, but as lay people they often need technical assistance.
3. The National Advisory Council has the same conflict as the state councils and in addition, its mandate to evaluate is not clear.
4. The Management Evaluation Review for Compliance and Quality does evaluate compliance on paper, but the relationship between program compliance and program improvement is yet to be proved.

5. The NIE's thorough study of vocational education will contribute to broader understanding, but it is ambitious given the level of funding.
6. The Vocational Education Data System has met with fundamental problems in the area of state and federal relationships. Its scope is difficult to comprehend at this time.
7. Studies by the Office of Evaluation and Dissemination on sex equity and bilingual vocational education are addressing major problems in the field.
8. The National Center for Research in Vocational Education has been able to provide technical assistance to only four states in evaluation.
9. National and state occupational information coordinating committee will take years to develop. Little data is available in some states.
10. The GAO has not yet provided a report on how well everyone is proceeding with meeting the mandates.
11. The BOAE's leadership role in evaluation is complex, challenging, and not yet fully realized.
12. The Coordinating Committee on Research in Vocational Education is only beginning to function and it's full potential is not yet known.
13. With numerous other groups also concerned with evaluation, there seems to be some point at which integration must take place.

Conclusions

Accreditation review, vocational program approval assessments, Office of Civil Rights surveys--these are just a few of the other evaluations comprising a total evaluation burden on state and local agencies which is overwhelming. Much of what is being done, is done for compliance, but states hope that it will also provide useful information for program improvement at the local level, which is, after all, the primary purpose of evaluation. Decision-makers on the other hand, see evaluation as a tool for making policy and funding decisions. Whether the two purposes are compatible is the question yet to be answered. Other recurring questions posed by the evaluation requirements are:

1. Are we reaching a point of diminishing returns with regard to the amount of evaluation? Is the cumulative burden and cost becoming prohibitive?
2. What are the real incentives for compliance?
3. To what extent do the federal evaluation requirements determine state and local policies?
4. Is there hope for interface among the various groups?
5. Can all the evaluation results be pulled together for one coherent picture of vocational education?
6. How well is what Congress wanted done being translated into reality?

G. Specifications for Longitudinal Studies of Former Vocational Education Students (to be completed January 1980, cost: $80,621)

Problem Statement

There is a continuing need to obtain data and information for measuring the effectiveness, efficiency and relevancy of vocational education. A number of national studies and reports on vocational education, and the federal legislation since 1963 have pointed to this need. The type of data and information identified is suggestive of longitudinal studies of former vocational education students. However, the problems of cost and the inherent methodological and operational problems have prevented local and state education agencies from undertaking longitudinal studies. Therefore, efforts to fully define the problems in the design and conduct of longitudinal studies for and suggest cost-effective approaches to obtaining data and information can provide new insights for local and state vocational educators. This can lead to new initiatives and more effective procedures for accountability, evaluation, and program improvement.

Objectives

A concept paper will be developed on longitudinal studies which will outline past efforts, major problem areas in conducting longitudinal studies, variables identified for data collection, methodology,

and cost factors for conducting longitudinal studies. Specifications for longitudinal studies of former vocational education students which supports program improvement, and local, state, and federal reporting requirements will be developed.

Procedures

1. develop project information base
2. develop longitudinal study concept paper
3. develop specifications for conducting longitudinal studies of former vocational education students
4. prepare compliance documents for National Center management and USOE Bureau of Occupational and Adult Education personnel

Accomplishments and Impact

This project will develop specifications for conducting longitudinal studies of former vocational education students which can be used by local and state education agencies. The project will also delineate data sources for assisting in measurement of the effectiveness, efficiency, and relevancy of vocational education.

The project will provide information to support the efforts to initiate longitudinal studies of former vocational education students. Also, the specifications will address those problems and concerns which are encountered in conducting longitudinal studies, and provide alternative solutions.

Five Small Scale Studies in Experiential Education

A. A Provisional Typology of Experiential Education Programs
(to be completed 1979, estimated cost: $69,948)

Several groupings of programs have already been attempted as a means of describing the range of experiential education. Also, research has been conducted on individual programs. However, a classification of programs is needed to guide research in experiential education as a comprehensive area of investigation.

A typology of programs will ensure that information will be gathered systematically and that research findings will be applicable to more than individual programs. This typology will be instrumental in designing the studies which address research questions relevant to all or most experiential education programs.

Having a grasp of the context of an explicit framework for experiential education facilitates the design and implementation of empirical studies. Also the decisions made in pursuing a line of inquiry are more likely to produce desired consequences. Studies in experiential education not guided by such a framework can result in collecting interesting and even precise information. A well-thought-out typology of experiential education programs will aid in interrelating that information, and in determining its relevance and application.

The assumptions, concepts, and methods associated with the typology will be out in the open. They can then be examined for possible biasing and limiting effects. As a result the typology can be modified and revised, hence, increasing its utility in research and development.

B. Preliminary Investigations of the Impact of Participat[illegible] Experiential Education in Work Settings on the Relati[illegible] Youth with Peers and Adults (to be completed 1979, estimated cost: $69,948)

Presently there are a number of studies which explore the impact of peer relations on the values, behaviors and activities of youth of different socio-economic backgrounds and relative success in school. To date, there is a lack of empirical investigation of the impact of the experience of youth in different adult environments on their ongoing relationships with peers and adults. In particular, an in-depth analyses of the impact of different work settings on the relationship of youth with adults is lacking. In addition, there is a lack of study of the impact of different types of planned work experience on the relationship of youth with adults. Therefore, this study will explore how various kinds of experience in work settings, both program related and part-time, impact on the high school students' reference groups.

C. Preliminary Investigation of the Retention Rates of Selected Concepts Resulting from Students Enrolled in Courses Which Provide an Inschool and Experiential Learning Option (to be completed 1979, estimated cost: $69,948)

Generally, studies have indicated that students do not remember traditional subject matter over long periods of time. Students tend to memorize the material but do not necessarily internalize it (e.g., form structures that permit recall of information). Thus, forgetting occurs. This study proposes to investigate which selected concepts (skills) associated with traditional subject matter are remembered longer by students in traditional learning environments and which are remembered longer by students in experiential learning environments.

D. Study to Investigate the Overlap of Experiential Education Program Culture with the School System Culture and Work Site Culture: Feasibility Study of Developing/using Instruments/techniques to Describe Cultures Associated with Experiential Education Programs (to be completed 1979, estimated cost: $69,948)

From an anthropological perspective, an experiential education program has a structure (instructional goals, activities, perceived roles) which when implemented will establish its own culture. Furthermore, the program culture is shaped by its association with the school system and the work site environment, and community cultures. This study proposes to investigate techniques to describe/compare the cultures of the experiential education programs, school systems, and work sites for the purpose of hypothesizing factors that shape program implementation.

E. An Exploratory Study of the Impact of the Expectations of Various Participants on Experiential Education Programs (to be completed 1979, estimated cost: $69,948)

Experiential education in work settings involves broad participation of representatives from various sectors of the community (viz., schools, employers, organized labor, parents, and youth). These participants come to an experiential education program with expectations for what they will get out of their participation as well as with expectations for the experiential learners themselves. This study will investigate those expectations and their impact on the experiential program. Provided that arrangements can be made, this study will examine participant expectations in more than one program type which will lead to the development of a profile of participant expectations across program types.

Handbooks

A. Evaluation Handbook: Guidelines and Practices for Follow-up Studies of Former Vocational Education Students (Franchak, Weiskott 1979, cost: $61,906)

Purpose

In compliance with the Vocational Education Amendments of 1976, vocational education programs at state and local level must collect and report reliable, valid data regarding program effectiveness. The purpose of this handbook is to identify exemplary strategies to assist agencies in initiating and/or improving follow-up studies of former students, completers, early leavers, or dropouts from regular vocational programs. The handbook also contains information about legislative requirements, the development of forms and instruments, sampling techniques, guides for interpreting data, and alternative methods for reporting.

Background and Organization

This handbook attempts to synthesize concepts and practices, and materials from the current state-of-the-art rather than to produce new information. The methods of collecting information for this handbook were:

1. a survey of the literature on follow-up studies;
2. interviews with leading proponants of follow-up;
3. laws and regulations were studied;
4. exemplary systems and instruments were reviewed.

The handbook contains nine sections (sections 3-6 comprise the steps required in designing, planning, implementing, and evaluating follow-up study or system):

1. using the handbook--explanation of developing a follow-up study profile;
2. a rationale for doing follow-up studies;
3. designing and planning follow-up studies;
4. procedures and mechanics for conducting follow-up studies;
5. data analysis and reporting procedures;
6. using follow-up data and studies;
7. glossary--clear and precise definition of key terms used in reporting vocational education program data;
8. appendix--student questionaires, and employer forms, sample letters, cost estimates, Office of Education instructional codes and titles, and an award winning brochure on a follow-up of dropouts;
9. selected bibliography.

B. Vocational Education Measures: Instruments to Survey Former Students and Their Employers (Gray, Abrab, McKinney, and Billings, 1978, cost: a part of the "Interpreting Outcome Measures in Vocational Education")

This handbook of resources and information is directed to those responsible for developing and conducting outcome evaluation in vocational education. The handbook contains instruments and information for gathering data concerning job performance, job satisfaction, former student's perception of training, and employers perception of training.

The 34 instruments included in this handbook were reviewed and abstracted to develop the following information (a copy of each instrument is also included):

1. title of instrument
2. developer
3. date prepared
4. availability (mailing address, cost, ERIC number)
5. description (including purpose, content, number of, and type of items)
6. intended population
7. respondent
8. administration (including time of year, and method)
9. response made
10. scoring
11. reliability and validity
12. additional comments

The four divisions of the handbook are job satisfaction, job performance, former students' perception of training, and employers' perception of training. Each section is color coded for easy reference. A user's guide is included to answer questions such as "Are there companion instruments to be used with employers and employees?", "What instruments can be used for mail surveys, or telephone surveys?", "How much paper work is involved for both respondent and evaluation?"

A final chapter entitled "Job Satisfaction and Performance Measures: The State of the Art" analyzes concepts of job satisfaction and job performance and develops a model of the causes of each. Additional job attitudes such as intrinsic motivation, job involvement, and beliefs about work along with skill levels and impact of vocational education training are also discussed.

C. Handbook I: Evaluation Guidelines and Practices for State Advisory Councils (to be completed 1980, estimated cost: $50,478)

Purpose and Objectives

The scope and number of the tasks assigned the State Advisory Councils for Vocational Education by the Education Amendments of 1976 have placed an enormous responsibility on the council. Persons who are, for the most part, unfamiliar with the tenets and methods of evaluation have been charged with evaluation responsibilities (Section 105 (2) and 112(b)(2)). Thus, it is important to define a valid perspective or evaluation role within the constraints and capabilities of a state advisory council.

The objective is to prepare a handbook designed to help state advisory councils for vocational education improve their evlauation of vocational education programs and related services.

Procedures

In preparing Handbooks I, II, and III, these basic research and development strategies and procedures will be used:

1. translation of problem statement into questions and/or task statements;
2. identification of data or information needs;
3. review of literature;
4. analysis of data and information;
5. preparation of detailed outline of topical areas;
6. preparation of initial internal drafts of the handbooks;
7. review of handbooks by external reviewers;
8. incorporation of suggested changes and development of final draft of each handbook.

Accomplishment and Impact

State vocational education advisory council members and council staff will have access to an evaluation resource that can assist them to better perform their assigned evaluation tasks.

A definition of the expanded evaluation role of the State Advisory Council and guidelines and practices for carrying them out within the constraints and limitations facing them should help the councils assume a more efficient and effective role.

D. Handbook II: The Case Study Method: Guidelines, Practices, and Applications for Vocational Education Evaluation (to be completed January 31, 1980, approximate cost: $50,478)

Purpose

In light of increasing evaluation requirements, and the concerns of many over the failure of conventional methods to adequately evaluate vocational education, educators are searching for more effective and efficient evaluation alternatives. One alternative to standard evaluation procedures is the case study. A case study, defined as intensive, detailed analysis and description of a single organism, institution, or phenomenon in the context of its environment can allow evaluators to deal with variables that are difficult to quantify.

Because the case study method is one that is easily abused, there is a need to provide a practical guide for using it in evaluation of vocational education. Such a guide must include its technical research aspects, justifications for its use, and how one might decide the circumstances under which it might best be used.

The object is to prepare a handbook on the use of the case study method for vocational education evaluation with emphasis on effective strategies, procedures, and guidelines for individuals in state departments of education (SEA) and local education agengies (LEA).

Accomplishment and Impact

State agency and local education agency personnel responsible for vocational education evaluation will have a practical guide for improving the technical aspects of using case study methods for evaluating vocational education.

Vocational educators should become more knowledgeable of appropriate applications of the case study methodology. Case studies should become more rigerous and this more credible.

E. Handbook III: Assessing Performance Skills: Guidelines and Practices for Vocational Education (to be completed January 1980, approximate cost: $50,478)

Purpose and Objectives

Vocational education, as defined in P.L. 94-482 requires that students be trained in the skills needed to perform on the job and that programs be evaluated accordingly. One of the most useful methods for determining the degree of skill learned is by using a performance test. However, careful assessment of the issues involved indicates that there are ramifications to performance testing that must be made explicit if the concept is to be adequately applied. Although a great deal has been written about performance testing, vocational education does not yet have a resource that draws together the issues, potentials, and implications of performance testing.

The objective is to prepare a handbook designed to help vocational educators assess the critical concepts as they design and/or identify valid performance tests and performance testing conditions.

Accomplishment and Impact

Educational policy makers, teacher educators, state and local vocational educators interested in curriculum assessment, and persons involved in research, development and evaluation will have a resource that assesses the potential and implications of the critical concepts and theoretical constructs that underlie performance testing issues in vocational education.

Education policy makers, teacher educators, persons interested in curriculum research, and persons in vocational education research, development, and evaluation should be more aware of the complex issues connected with performance testing. Performance testing activities

conducted by those persons should indicate assimilation of the guidelines and practices presented in the handbook.

Monographs and Papers

A. Data Sources for Vocational Education Evaluation (Hopkins, 1979, cost: 6,000)

The emphasis in this paper is a data-based systematic objective approach. It recognizes the many approaches to evaluating vocational education and the need to identify the level of evaluation as well as the target populations. The different types of data, such as school data needs, program needs and economic impact data needs are described. Federal and state data sources for labor market information, scholastic information, demographic and population, economic impact information, facilities, personnel and program information are discussed. The limitations of data are presented in order to illustrate that it is not always the quantity of data that is lacking but rather the refined data elements that assist vocational educators in making accurate decisions for the future. Data source problems, methodological difficulties, and problems with duplication of data are also examined. The paper includes comprehensive charts with data sources described in terms of frequency, geographic source, and availability.

B. Impact Evaluation in Vocational Education: The State of the Art (Grasso, 1979, cost: $6,000)

Impact evaluation is a type of evaluation-research for achieving the prospect of the highest quality programs in vocational education. It can be used to document the effectiveness of existing programs and to suggest ways of improving programs. It also provides the basis for satisfying accountability needs. This paper attempts to demonstrate why all of this is true. Section I introduces the concept and provides general definitions. Section II is a detailed discussion of the nature of the concept of impact evaluation, concluding with a definition applicable to vocational education. Section III outlines the reasons for

the importance of impact evaluation. Section IV is concerned with existing models, and includes a discussion of the strengths and weaknesses of current practices. Section V describes ongoing developments relating to impact evaluation, while the final section analyzes future trends. An extensive bibliography is included.

C. Longitudinal Methods as a Tool for Evaluating Vocational Education (Purcel, 1979, cost: $6,000)

This paper is written to provide information concerning the advantages and disadvantages of using longitudinal methods of evaluating vocational education. It begins by defining longitudinal methods and describing the types of approaches: (1) the "pure" longitudinal study using the same instrument and same subjects over time, and (2) the cross-sectional study gathering the same information from different groups at different stages of development. The advantages and disadvantages of these two methods are considered. Selected past studies using longitudinal methods are examined in detail. Data needs in vocational education, the use of longitudinal methods to gather such data, potential problems arising from the use of longitudinal methods, and potential means of implementing longitudinal methods in vocational education evaluation are discussed. Finally, the basic data requirements for the successful implementation of longitudinal evaluation methods are described. Although few individuals have attempted to apply longitudinal methods to vocational education, such methods appear to be very useful to vocational educators. They allow for the study of many of the question currently being asked by the critics and funders of vocational programs.

D. Needs Assessment for Program Planning in Vocational Education: An Overview (Ahmann, 1979, cost: $6,000)

This paper presents an overview of needs assessment and the issues and problems associated with it. The first section incor-

porates various definitions of educational needs currently used and the types of needs assessment methods commonly applied. Two types of needs assessment-subjective discrepancy analysis and objective needs assessment--are important in vocational education, as illustrated by the national, state and local studies which are summarized in the middle section of the monograph. Finally, the state of the art of needs assessment in vocational education is examined. A number of significant issues and problems exist. These are delineated in the last section of the paper. It is the intent of this monograph to assist practitioners in vocational education in their efforts to know more about the strengths and weaknesses of needs assessment, and in this way to anticipate many of the changes in methodology which will come in the future.

E. Use of Evaluative Data by Vocational Educators (Lee, 1979, cost: 6,000)

The use of evaluative data by vocational educators is considered on the basis of three assumptions: (1) the use of evaluative data cannot be assumed; (2) "use" is an active, not a passive function; and (3) a number of interrelated elements govern the use of evaluative data. The problems or concerns involved in the use of evaluative data, including availability, reliability, credibility, utility, and consistency of data are developed in detail. Examples are provided of the various uses of evaluative data by vocational educators. These include use of data for policy determination, goal setting, planning, administrative action, funding allocation or reallocation, and program development. The additional issues of the effectiveness of the use of evaluative data and the quality of current evaluative data are examined. The conclusions incorporate recommendations for five courses of action to promote more effective use of evaluative data by vocational educators.

CHAPTER IV

EVALUATION OF VOCATIONAL EDUCATION IN WISCONSIN

Although the Wisconsin Board of Vocational, Technical, and Adult Education is the sole agency responsible for the state plan in Wisconsin, the responsibility for secondary vocational education has been delegated to the Department of Public Instruction (DPI). Because of this dual structure, evaluation efforts in secondary and postsecondary institutions will be considered separately in this report.

I. Secondary

Secondary vocational education programs in Wisconsin have increased rapidly since 1965, when the Capstone pilot program began. With this rapid growth the desire for an evaluation system was expressed by several Local Vocational Education Coordinators (LVEC) to determine if their programs were meeting their objectives, the needs of the students, and the needs of the community. In response to that interest and to the federal requirement for evaluation as mandated in current legislation for vocational eduation (Public Law 94-482), the Vocational Program Evaluation System was developed by the Center for Vocational, Technical, and Adult Education at the University of Wisconsin-Stout in Menomonie, through funding by the DPI. The system was piloted in one school in 1976-77 and in a further 17 schools during 1977-78. Following the second pilot year, a Composite Evaluation Report for Secondary Vocational Education in Wisconsin 1977-78 was published, which presented selected findings of the self-evaluation done by the seventeen second-year pilot schools. Schools with funded vocational education programs are required to implement the self-evaluation system by 1982, but the choice of implementation year has been left up to the schools. An evaluation period of either 12 or 18 months is suggested, the longer period applying to larger schools or clusters of schools under one LVEC. Evaluation is underway in 48 schools and has been scheduled for 205 more during 1979-82, which represents a commitment by a total of 221 of the 289 districts with funded vocational education programs.

A. The Vocational Program Evaluation System

The Vocational Program Evaluation System is designed to provide vocational education outcome data for three administrative levels, in the following order of priority (DPI #8-5189/R-084, 1978):

1. local level, to promote and assist in the evaluation of secondary vocational programs for the purpose of program improvement;
2. state level, to provide the DPI with valid and representative data upon which statewide planning of vocational education programs can be based;
3. national level, to help ensure accountability of federal and state funds allocated to local secondary vocational programs and to satisfy federal legislation and state requirements of program evaluation within a five year cycle.

Its goals are to determine the effectiveness of the comprehensive vocational education program, of the various Capstone courses, and of the orientation and exploration level courses.

The overall program is examined within the framework of five components.

1. Needs assessment
   Is it comprehensive, systematic, and functioning?
2. Goals/planning
   Does it include stated, consistent, achievable, measurable goals and objectives which are based upon the philosophy of the program?
3. Implementation
   Does it reflect identified district needs and its stated philosophy and objectives, and is it characterized by sound administration, management, instructional practices, and vocational guidance services?
4. Product
   Are graduates employable, prepared for postsecondary education, and satisfied with the program?
5. Evaluation
   Is it systematic, on-going and in use relating to the goals of the program?

Capstone courses are assessed as to whether they are preparing students for work and/or postsecondary training; whether they are comprehensive; how recently they have been modified, deleted, or upgraded; whether efforts are being made to reduce sex-role stereotyping; and the extent to which communication takes place between the vocational education program and academic areas within the school, and with local community resources and other educational agencies in the area. Orientation and exploration courses are examined for revelancy, adequacy, and availability to a wide range of students.

The evaluation system consists of three phases (Dale, 1978).

1. Self Evaluation. The self-evaluation study is conducted under the leadership of a steering committee of which the LVEC is chairperson. Suggested composition for the committee includes the principal, guidance director, coordinating teacher(s), public relations specialists, academic representation, and student/graduate representation. The following eight evaluation activities are to be conducted by separate working committees appointed by the steering committee:

a. self evaluation narrative (structured to the five components outlined above);
b. student follow-up surveys (including placement and opinion of program)
    1. one-year follow-up of Capstone graduates,
    2. three-year follow-up of Capstone graduates,
    3. one-year follow-up of non-Capstone graduates (sequence and/or academic),
    4. three-year follow-up of non-Capstone graduates (sequence and/or academic);
c. employer follow-up survey (assessment of training, attitude, and work related qualities);
d. student (in-school) assessment
    1. vocational student survey (program quality and own plans),
    2. student interest survey (career interests and exposure to information);
e. professional staff assessment (teacher perceptions of overall program and his/her role in it);
f. advisory committee(s) assessment (of own role);

g. school and community data collection;

h. vocational services to special needs students (matrix of student characteristics and services offered plus staff assessment of services).

A self-evaluation report is then compiled which includes a school district profile; a profile of the vocational education program including history, philosophy, organization, and program and course outline; a data display in working table format and analysis of the data; and a written self-analysis which draws conclusions from the above and makes recommendations. This report is to serve both in future planning and as the basis of evaluation by the visiting team.

2. External evaluation: team visitation. The visitation team includes educators representing a cross-section of vocational and administrative areas and positions, community business and/or personnel, and students or recent vocational graduates. Potential members are selected by staff of the Center for Vocational, Technical, and Adult Education from lists of qualified and interested persons prepared by DPI consultants for the individual program areas. All members are from outside the district being visited, and both geographic and program considerations are made in the selection process. The school administrator and LVEC may exercise a strike-off privilege, if necessary. The school handles notification of team members, scheduling, assignments, and provision of materials in preparation for the visitation, including the Self Evaluation Report, which is to serve as an evaluation guide. This last is to be done no later than 10 days in advance of the visitation.

All team members function as evaluators assessing the quality of the program in the light of its stated purposes and objectives, but each has a more specific focus as well. The educators spend the majority of their time interviewing educators within the school, while the business/industrial representatives talk mainly with employers and others in the community in contact with current or former students or directly with the school. The student team members will generally be

paired with a currently enrolled student who has been released from classes for a portion or all of the day to guide the team member and facilitate interviews with students. All team members may, however, overlap to some extent in their team assignment.

The team visit lasts two days, preceded by an evening orientation meeting, and concludes with team members writing up their individual reports, a debriefing session of the team, and a report session of the team leader with the school administration. The team leader then compiles the team report and submits it within one week to the Center from where it is forwarded to the school for duplication and distribution to the appropriate people. The report contains an overview of findings followed by detailed conclusions, recommendations, and suggested solutions for the five components of vocational education program evaluation, and detailed reports on the discipline areas and on services to those with special needs.

3. Implementation of Evaluation Findings. This third and most important phase of the self-evaluation model has been left primarily to the individual schools for development, with the suggestion that they take into account the state/federal requirements for annual accountability reports, program plans, and updates of the five-year plan. Schools are also encouraged to make evaluation an integral part of their long-range planning. Distribution of the team visitation report is also left to the discretion of the schools, although copies are deposited with the DPI and the Center, and it is suggested that each team member receive a copy as well.

Discussion

For this report, seven LVECs responsible for a total of 14 schools were interviewed. Seven of those schools had completed the self-evaluation and team visitation, five of them as a cluster under one LVEC. Of those currently implementing, three were clustered under one LVEC.

Opinions of the evaluation system was universally positive, with only problems of timing encountering real criticism. Schools which were in process did indicate a conflict in the DPI requirements for submission of completed long-range plans by April 16, 1979 (see below), when their self-evaluation would not be complete until June 1979 or fall 1979. Evaluation appeared to feed directly into program improvement at the administrative level, but in some cases there was no obvious mechanism for it to reach the teachers themselves. In at least two cases resistance of the school board and/or administration to recommended changes was cited as a major obstacle to the implementation of evaluation findings.

It should be noted, however, that following the evaluation model is not sufficient to guarantee the quality of the evaluation effort, and in some cases the self-evaluation report appeared to have a less than sound data base upon which to draw conclusions. On the other hand, the procedure is new to many districts, and the habit of following what all districts consulted agreed was a sound and well-described evaluation model will most likely lead to improvements in both the report itself and the ways in which districts make use of it in their own planning and improvement.

This evaluation system seems to make excellent use of existing resources. The total budget from DPI is $61,000 for 1978-79 with a projected local expenditure of between $90,000 and $120,000. Each school spends approximately $700 for the on-site visit.

B. Local Long-Range Plans

In addition to the requirement for implementation of a comprehensive evaluation system by 1982, the DPI has carried out a two-phase process for development of local long-range/five-year plans. In order to attain minimum compliance with federal law, a sketetal long-range plan was required from each funded district by June 30, 1978 under the first phase of the developmental process. Guidelines were then introduced for Phase

II, or the development of the full plan, through regional workshops in the fall of 1978. The deadline for submission of these plans was April 16, 1979.

The guidelines for these plans enumerate two major parts, a description of the local status of vocational education, and the plan itself. Aside from giving a picture of the local employment community and the relationship of the district's vocational education philosophy to that of the state, and describing the programs both in general and with regard to services to special groups, the first of these two major parts is to include description of pertinent recommendations from past evaluations and what has been done as a result of these evaluations. The goals and objectives called for in the third part are to reflect what will be done to achieve the recommended changes. The objectives are to specify how they will be evaluated to determine the extent to which they have been attained. Districts are also instructed to begin to gather information to show how current objectives are being attained, which serves as a kind of self-monitoring and ongoing evaluation.

The DPI staff will meet in June with a team of around 20 LVECs to read and review the local long-range plans, with DPI consultant comments to follow the initial evaluation by the LVECs. A report of this evaluation will then be forwarded back to the districts, with either acceptance of the plan or a request for revision.

II. Wisconsin Postsecondary

A. Wisconsin Board of Vocational, Technical, and Adult Education (WBVTAE)

1. Divisional Reviews

The WBVTAE has conducted divisional reviews for the past three years. Their purpose is "to provide additional background information to substantiate the effort of the WBVTAE in carrying out the responsibilities mandated by legislative action as indicated in Wisconsin statutes and federal legislation" (WBVTAE, 1977). They are scheduled so that each instructional area will be reviewed in each district on a five-year cycle; state consultants will conduct three reviews per year with four in one year of the cycle; and each district will have one or two reviews each year.

The review supplements information in the WBVTAE and district offices with a two-day team on-site visit. Visitation teams are composed of state staff members appointed by the bureau directors of the Division of Community and Manpower Education, sometimes a State Advisory Council member, and usually a member from another district selected in consultation with the district being evaluated, from a list previously submitted to the WBVTAE. Expenses for this member are borne by the district from which he/she comes. The chairman of the team is designated by the director of the Bureau for Program Development from consultants in the program area under review.

The following outline is used by the team during the review to compare available information with actual occurance.

I. Program Information
   A. Curricula
      1. Identification of measurable objectives
      2. Minimum WBVTAE program standards
      3. Maintenance of relevant content
      4. Status of course approval records
      5. Special considerations; i.e., clinical components, curriculum, revision process/plans
      6. Coop programs
      7. Safety practices and procedures

B. Learning/Teaching Process
   1. Study guides (student and instructor)
   2. Instructional methodologies
   3. Student evaluation. Examination of students' skills, knowledge, attitudes and readiness of entering employment successfully

C. Education Resources (availability and usage)
   1. Resource center
   2. Multi-media materials
   3. Resource persons

II. Students (by program)
   A. Recruitment, admission, advanced standing policies and procedures
   B. Placement process
   C. Follow-up Data
      1. Rates of employment and unemployment
      2. Wage rates
      3. Duration of employment
      4. Employer satisfaction with performance of vocational education students as compared with the performance of persons who have not had vocational education
   D. Financial aids
   E. Activities and organizations
   F. Availability of counseling and other supportive services
   G. Services to special populations
      1. Women
      2. Members of minority groups
      3. Handicapped
      4. Disadvantaged

III. Staff (by program)
   A. Instructional Personnel
      1. Certification status
      2. Orientation for new faculty
      3. Faculty committees
      4. Divisional/program faculty meetings
   B. Professional Growth
      1. In-service programs
      2. Opportunities for occupational upgrading
      3. Opportunities for educational upgrading

IV. Program/Operations
   A. Planning process for development
      1. Programs--occupational extension offerings, community services
      2. Facilities and equipment (on and off campus)
      3. Personnel
      4. Resources used in planning process
   B. Evaluation
      1. Self-evaluation
      2. Accreditation
   C. Instructional Facilities and Equipment
      1. Adequacy and appropriateness (on and off campus)
      2. Acquisition and replacement of equipment plan
      3. Space utilization

D. Membership, Role, and Function of Advisory Committees
   1. Planning process for development
   2. Evaluation
   3. Instructional facilities, curriculum and equipment
   4. Discontinuance (note materials from state office)

E. Special Related Efforts
   1. Impact of existing Vocational Education Act projects
   2. Need for additional efforts through Vocational Education Act projects
   3. Relationship of CETA class-size programs
   4. Need for additional CETA class-size programs
   5. CETA individual referrals

V. Program Discontinuance (note material from state office)

VI. Individual Program Profiles
   A. Full-time program statistics
   B. Part-time and community service program statistics

Each member of the team is assigned specific areas of responsibility during the review. The last half day is spent in taping the first draft of the final report, which is to be submitted to the district director in finished form within five weeks following the review. The basic format consists of findings and recommendations, with enrollment and placement statistics displayed in table form. An exit interview with the district staff is held.

2. Program Evaluation/Discontinuance

The WBVTAE established standards for program review and discontinuance in September 1976, setting a deadline of April 1, 1977 for submission of district procedures for the same. This requirement was established in the context of accountability and, while the procedure may be initiated at the district or state level, the disbursement of funds is made contingent upon adherence to the guidelines. Criteria against which program quality is assessed are ability of the program to attract and retain students; ability to place students in related positions; facility utilization; cost and benefit of program operations; local, state, and national labor market trends; district, state, and professional advisory committee recommendations; ability of the program to meet the needs of special groups; and ability to upgrade students in their present occupations.

The procedures outlined are:

1. A screening process comparing the effectiveness of each program in terms of its own stated goals and objectives and in relationship to other programs, to determine which programs are least viable. Data secured in the screening process is to be reviewed by the WBVTAE Bureau of Program Accountability.
2. Establishment of a program evaluation committee to conduct an in-depth evaluation of the least viable programs.
3. Collection and analysis of data about the program and preparation by the evaluation committee of a written report with recommendations, to be submitted to the appropriate administrator. Recommendations may be to continue, restructure, or discontinue portions or all of a program.
4. Preparation of the final report by a district administrator, for submission to the district director.
5. Review of recommendation by the district director and decision whether to reject and send the report back for revision or to accept. If program discontinuance is recommended, this is taken to the district board, and, if approved, forwarded to the State Director.

Reinstatement of a program so discontinued must be applied for through procedures outlined by the State Board for new program development.

3. Program Modification

As of July 1, 1979 procedures for program modification will be established by the State Board, requiring State Board approval of all major modifications prior to implementation. These modifications defined as changes in title, type, length, goal and/or objectives, description and/or DOT title. The request for modification includes the present and proposed program profiles, and substantiating material in support of the change, such as advisory committee actions, occupational trends, consultant recommendation, legislative mandates, etc. Prior evaluations are not specifically cited as part of this material.

At the present time the following procedure is used in making program changes (WBVTAE Policy Announcement 75-10, 1975):

1. changes in length of state board approved programs will be submitted to the state director and approved by the Wisconsin Board;
2. revisions or changes in program structure, i.e. course revision, which change program emphasis or objectives must be communicated to the state director for his approval;
3. program name changes should be required by communicating with the state office. Local advisory committee documentation should accompany such requests whenever possible. State Advisory Committee recommendations will be utilized where more than one district is involved.

4. WBVTAE Task Force on Evaluation
   a. District Program Evaluation (being developed)

In order to meet federal and state mandates, the WBVTAE is in the process of developing evaluation guidelines which are scheduled for distribution to the districts by January 1, 1980. Districts are then to submit to the State Board Bureau of Program Accountability by June 30, 1980, a plan for evaluation which includes objectives for district evaluation, assignment of responsibilities, and procedures for the three phases of monitoring and screening, on-site reviews, and impact appraisal. Procedures are also to be included for program modification and continuance or discontinuance. When this process is fully implemented it will replace the divisional reviews in meeting the requirement for evaluation on a five-year cycle.

Guidelines for the evaluation system are still in the draft stage. Suggested criteria include future employment potential of a given job category; the ability of the program to attract and retain students, and the maximum and minimum numbers which it can accommodate effectively; placement of graduate and non-graduate completers; currency of courses; student, graduate, employer and employee input; accessibility of the

program to the population to be served; and adequacy of facilities, staff, and support services. Program costs may be analyzed in terms of enrollments and graduate placement.

The three phases of the evaluation process have been outlined as follows:

1. Monitoring and screening. This is an annual process, built upon continuous program data collection and student and employer follow-up studies. A suggested framework includes four major components: context, input, process, and product. Context refers to student and labor market demands and student interest. Input refers to entry and total enrollments and the enrollment percentage with reference to the district standard. Process refers to staff qualifications, student-teacher ratio, accessibility of the program, and program costs. Product refers to completers, leavers, placement, and average earnings of those employed fulltime in their area of training. Data is to be analyzed and recommendations made for continuance, modification, or on-site review.
2. On-site reviews. On the basis of the screening results, those programs which evidence the greatest problems are identified for on-site review. The review may be initiated by either the WBVTAE or the district, and is conducted by a team composed of WBVTAE staff members, and possibly other district members and/or out-of-state consultants. It involves more detailed collection and analysis of data, including attention to teacher qualifications and instructional quality; facilities and equipment; quality of guidance and counseling; placement, and follow-up services; use of advisory committees; employer participation in cooperative programs; student achievement as measured by standard occupational proficiency measures, criterion-referenced tests, and other examinations of student readiness for entering employment; student success as measured by employment and wage rates, duration of employment, and employer satisfaction with employees with vocational education preparation compared to those without it; and quality of services to special groups in terms of all of these factors. On the basis of this data, an

on-site review is conducted, which results in recommendations to the district for program improvement.

3. Impact appraisal. This third phase of the evaluation procedure has not been developed in detail at this writing, but will consist of a synthesis of the data submitted in the first two phases, plus collection of additional data and such further quantitative evaluation as is necessary to achieve the five-year cycle of evaluation required by federal legislation.

b. District Field/Community Services Evaluation

A model for evaluation of field services has been developed by the Center for VTAE at the University of Wisconsin-Stout and field-tested in two VTAE districts (see Section B, part 4 for details). This model is under consideration by the Task Force on Evaluation and will probably be adopted statewide.

c. State-wide Follow-up Program (Gonzales and Nickel, 1979)

Current efforts and procedures include the development and printing of a follow-up questionaire, mailed by the 16 VTAE district staffs to students approximately six months following their graduation or withdrawal. Several districts personalize the state questionaire by adding their district name and address, and sometimes by seeking additional information. District staffs concentrate on efforts to secure the best possible response rate. Data collected by district personnel are sent to the State Follow-up Coordinator who is responsible for analyzing the data and developing the state Follow-up Report.

B. Individual VTAE Districts

The State of Wisconsin is divided into 16 VTAE districts, of which three are largely urban, three predominantly rural, and the remainder rural with one or more cities of some size. For the purpose of this report five districts were chosen: one urban, one rural, and three from the combined urban-rural category. Within the context of time pressures, an attempt was made to consider geographic distribution and representative demographic characteristics.

1. District P was largely urban. In compliance with the State Board requirements it is developing an educational master plan and con-

tinuous evaluation process. The initial documentation was compiled in preparation for a fall 1978 North Central on-site visitation, but with the intent of creating an instrument for use by the institution in planning and improvement of its own programs. Basic material on the district is included; History, mission and purposes, organization and governance, and demographic characteristics of the area. A guide for input was sent out to all program and service areas, outlining the information needed for the master plan and a basic format consisting of five sections.

For the instructional divisions, the initial section includes a concise narrative describing program offerings, a generalization if possible concerning the characteristics of students in those programs, a description of any specialized target populations, and any program statistics available (not including enrollments, graduates, placement, or facility utilization, which are available elsewhere). The second and third sections identify strengths and limitations of programs respectively, including the criterion on which the judgment was made and a discussion of possible causes. Suggested criteria are given for the areas of faculty experience, student achievement, quality of instruction, appropriateness of curriculum, need for the program, facilities and equipment, faculty/administrative communication, and support services. The final section of the report deals with plans for change, with attention to trends outside the institution which might affect services and to the distribution of responsibilities and services within the institution itself.

The same basic format is suggested for non-instructional service units. The first part is a brief description of the unit (department, office), its functions and their place in the overall mission of the institution, and services provided and to whom, with quantitative evidence if possible. The second part identifies the strengths of the unit as measured against a norm, if such exists; against past performance; and against other units, with documentation to be included from previous evaluations. In the third section, aspects of the unit which are less than satisfactory are identified by the same criteria as in the second section, with attention to such factors in the performance

as failure to meet deadlines, error, excessive turnaround time, and expense, and discussion as to possible causes for the problem. The fourth section is identical with that for the instructional divisions.

In conjunction with the master plan continuous evaluation document, an instrument was developed for evaluation of all programs during 1977-78, in order to identify any glaring problems. This evaluation/discontinuance review included basic program information; national, state, and local labor market statistics; district enrollment and institution initial enrollment and percent of capacity rates over a five-year period; student flow and graduation rates; placement information; and recommendations on the basis of this information from the faculty, district occupational advisory committee, the dean, the evaluation and achievement testing committee, instructional services, and the assistant district director for administration.

This first year's evaluation was acknowledged to be scanty because of the attempt to do all programs, but plans are to commence a five-year cycle of evaluation which is considerably more detailed, and includes curriculum improvement. Specifics as to format or scope were not available.

Also developed as part of the master plan and evaluation process was a student survey first administered in October 1977 to a sample of students selected on the basis of attendance in a class on a particular day at a particular time. A survey report was compiled which analyzes responses to the survey, including the percentage of responses to the polled and student profiles. Items in the student survey included ten on student background and purpose, and 19 assessing course quality, facilities, support services, non-instructional facilities and services, and teacher attitudes.

Other evaluation related activities include an annual survey of graduates done by the placement office, evaluations done by the occupational offices for various porgram areas, CETA and Veterans' Administration audits. Programs for meeting the needs of special groups are

not evaluated within the overall program context but separately via quarterly and annual reports to the funding agency.

District personnel expresses confidence in the structure which they have developed, and the mechanics for a link between evaluation and planning were certainly present. Development of the instruments for solid evaluation and careful reference to the results which they yield will determine whether the process does indeed become one of continuous evaluation.

2. District Q is mixed urban-rural. Personnel pride themselves on the close contact with the surrounding community and personal contact with their students. Little formal evaluation has been done until recently, outside of the accreditation studies and other required reviews. Once a policy announcement on program review and discontinuance was issued by the WBVTAE (February 1977), the district adopted a formal review process. Each division chairperson is responsible for scheduling a review of each program in his or her division every three years, the initial information collection for which is to be completed by either him/her or someone delegated by him/her. The data collected includes student enrollment compared with program capacity, the number of students retained, and placement of graduates in related occupations as compared with the last two years. Each of these areas is given equal weight on a point system (20 points each) and a standard of less than two-thirds of the total was set as requiring further study. Attention is also given to special needs served by the program, courses which have not been revised or reviewed within the last two years, and planned curriculum changes. On the basis of this information a score is tabulated and programs reviewed to determine whether they should remain as they are, be restructured, or be evaluated in-depth.

Up to this point, problems in programs have been referred to the division chairmen for remedial action. However, in fall 1978 a curriculum coordinator was hired and a new inhouse Curriculum Committee, including students, is being set up. Under the new evaluation plan,

programs will be referred to this committee for recommendations.

Restructuring requires a further study to determine implications to staff, facilities, equipment, budget, other programs, recruitment, student retention, and placements. An in-depth study requires the involvement of all of the staff under the direction of the Administrator of Instructional Services. Current labor market trends are identified and other opportunities for similar training within the state and within the Region Five States, either within the VTAE system or in private industry, are described. Enrollments are broken down as to groups served as well as by graduates, non-graduate completers, and withdrawals. Placement is examined by both graduates and non-graduate completers, and by employment, employment in a job related to training, and employment within the district. Graduate and employer evaluation of the quality of training is also required. The curriculum is evaluated with regard to the input of former students, employers, practitioners, and advisory committees into development, maintenance, and evaluation; provision of job skills which are applicable to a cluster of jobs, and rating on a five choice scale from poor to excellent, by students, graduates, employers, occupational advisory committees, instructional departments, the North Central Association, and any other applicable group or agency. Facilities and equipment are examined for accessibility; adequacy in size and design; similarity to that in the work environment; and rating by graduates, employers, occupational advisory committees, the North Central Association and others, as well as for the percentage of facilities used by other program areas. Instructional and support staff are assessed as to student-teacher ratio, professional improvement activities, and rating by the same groups evaluating curriculum. Program costs are itemized and analyzed per student, per graduate, and in relation to total school cost.

On the basis of this study, a final report is submitted to the Curriculum Committee, which recommends either continuation as is, restructuring, or discontinuance. This decision is then either accepted or rejected by the Administrator of Instructional Services and the District Director; if rejected a reason is specified. A formal recom-

mendation is accepted, action is taken on that basis, with notice to the WBVTAE. To date there has been no real link between evaluation and planning, but the consensus was that with increased emphasis on competency-based education in the institution, this link would come naturally.

Other evaluation activities include follow-ups done at six months and two years after graduation by the Student Services office. Counselors for the different programs are not segregated but are attached to the respective divisions, and division chairmen are therefore involved with the compilation of follow-up statistics. Non-graduates are followed up on a more frequent basis and are surveyed as to why they have left. Services to special groups are not included in the program review process. However, programs for the handicapped are being designed as regular programs which are particularly appropriate for, but not restricted to the handicapped, and when implemented, they will undergo the standard review. Course evaluations are also conducted by the division but apparently serve no function within overall evaluation and are merely summarized for the teachers' files.

District personnel felt strongly that their informal evaluation process was more than adequate for their needs, and they regard formal evaluation as serving only for accountability to the state of federal governments. Great emphasis is placed upon being able to respond quickly to the needs of the community, and the requirements of the WBVTAE for formal procedures are viewed as interfering with this at times. There was also some resentment expressed at the attitude at both state and federal levels that the local administrators do not have the knowledge or talent to develop and evaluate their programs in the best way for the needs of the populace which they serve.

3. District R, a predominantly rural district, developed evaluation procedures prior to the federal mandate and has published those procedures as part of its district plan for program planning, development, and evaluation. Administration of evaluation is be the Administrator of Instructional Services with a separate coordinator from the

district office designated for each campus, to insure a uniform and thorough evaluation process. The coordinators are rotated annually.

All programs are screened annually and the one-fifth which score lowest are then evaluated in greater depth. The initial screening process consists of compilation of data on enrollment, including reference to the optimum standard, graduates, and the attrition rate; placement and salary information; student-teacher ratio and program cost; and labor market needs at the local, state, and national levels. For all programs the percent of the enrollment standard in the program is compared with total placement and in related employment placement. Programs are ranked by these factors as well as by attrition rate and cost. For each of these performance indicators a score is assigned, and programs ranked by total score as well. On this basis the district director chooses one-fifth of the programs for further evaluation.

For each program so identified, a campus level program evaluation committee is selected consisting of the Coordinator of Instructional Services, coordinator of student services, the district coordinator of the instructional area being reviewed, the campus supervisor of the instructional area or program being reviewed, instructors (not to exceed two from the program), a student currently enrolled (if possible), an advisory committee representative (if possible), and a district program evaluation representative. The committee examines program objectives within the district and campus mission; indicators of program effectiveness; enrollment, attrition, recruitment, and student interest data; placement history; the use of staff, the advisory committee, and state guidelines in the curriculum; the method of instruction and the ratio of general education to skill courses; facilities and equipment; staff qualification and staff-student ratio; related resources; and program costs.

A final report is completed, including one of three recommendations: continuation of the program as is, restructuring of the program, or placement of the program on one-year probation with recommendations for subsequent discontinuance. The report is submitted to the district

evaluator, who reviews it and passes it to the district office for approval and eventual submission to the WBVTAE. A monitoring process has been developed to see that recommendations are incorporated.

District personnel expressed pride in their evaluation procedures in terms of program improvement potential and expressed apprehension that perhaps the WBVTAE guidelines might be such as to render their efforts irrelevant for accountability purposes.

4. District S relies mainly on North Central accreditation studies for its regular program evaluation. Other evaluation activities are optional student evaluation of given courses at the discretion of the teacher, and regular evaluation on the basis of attendance. Program improvement has consistently been stimulated by placement and enrollment information, and by input from the advisory committees, which include student members.

In field/community services, however, an evaluation model developed by the University of Wisconsin-Stout is used. Developed in 1975-76 under a grant from the WBVTAE, it is essentially a self-evaluation with following visitation, and has been piloted in two year-long phases (Dale, Phase I-1976, Phase II-1977).

The self-evaluation portion of the study is conducted by a steering committee under the leadership of the field/community services administrator. Further working committees are appointed to carry out the work of the self-evaluation and a summary is compiled by the steering committee for the final self-evaluation report. Questionaires have been developed for the following areas:

a. philosophy and objectives;
b. needs identification: methods and utilization;
c. management: administration;
d. management: records and reports;
e. management: planning;
f. management: finance and business management;

g. public relations;
h. staff and staff development;
i. instructional space, facilities, supplies and equipment;
j. curriculum;
k. the teaching-learning process;
l. learning resources;
m. advisory committee(s);
n. evaluation.

Each questionaire gives a criterion against which to measure performance and is to be completed by those involved in that particular aspect of the program, e.g., program administrators, occupational and area coordinators are to complete all forms; district directors complete 1, 3, 5, 6, 7, 14, and others as relevant; center supervisors complete 2, 7, 8, 9, 10, 11, 12, and 14. A scale from 1 (far below criterion) to 5 (outstanding) is used, with the instruction that evaluators work their way through the criteria one at a time and take notes for the use during team visitation as they go. Once the questionaires are completed, a computer answer sheet is filled out on the basis of the evaluator's answers and submitted for processing.

The computer analysis provides summary statements in narrative format at the total district level, the main campus level, and the outreach level, which are then used as the basis for the chapters of the report covering those perspectives. Each chapter gives an overview, the strengths and the weaknesses of the program, and conclusions and/or recommendations. The two final chapters of the report are a data summary based on the instructional self-assessment form and the advisory committee opinionnaire; and a chapter on plan for improvement which may be in process or already in existance.

The self-evaluation report serves as the guide for members of the visiting team during their two-and-one-half day visit. The visit begins with a meeting with the program administrator and district director and ends with a meeting which includes as well, program staff and the evaluation steering committee. The final product of the visit is the formal report, which is organized by the criteria for the areas listed in the self-evaluation report, plus an evaluation of each

educational field of study as to its needs assessment, objectives, program evaluation, admissions, variety of courses, instruction, and evidence of coordination between main campus and outreach. Each of these factors is rated wither highly satisfactory, satisfactory, or unsatisfactory. Each item is to include findings and recommendations.

The self-evaluation model for field services is also being supplemented by a teacher self-assessment which includes a 15 item checklist for teachers to rate their own performance from poor to excellent, an eight item class assessment questionnaire for students, and attendance profile forms. This evaluation effort is still in the proposal stage but emphasis is being placed on it because of the involvement of many instructors on a part-time basis, and the probability that an interest on their part in self-assessment will be the most efficient and effective means of maintaining quality.

An evaluation of adult continuing education was conducted in 1977-78 to provide data on users and non-users of the VTAE school system in the district. Questionnaires eliciting demographic information and possible future interests were distributed to users in randomly selected classes based on subject areas and in as close a proportion as possible to that of the subject area to the overall field service enrollment. Non-users were reached by telephone first, using a random selection process based on telephone count and urban-rural population ratios. Suggestions and recommendation based on the study results included intensifying efforts to reach low-income people and to get adult basic education out into the rural areas, and rotating high-interest programs from one center to another to make them accessible without excessive student transportation problems. Questions were also identified for treatment in further studies.

District personnel appeared on the whole to be satisfied with their evaluation program, although they are continuing to explore other evaluation possibilities.

5. District T has developed a screening process for evaluation which is now in its fourth year. A Curriculum Advisory Council

has been established, composed of the curriculum specialist, registrar, a placement supervisor, a department chairman appointed by the Instructional Services Council, a coordinator appointed by the Community Services Council, an instructional media specialist, a branch campus representative appointed by the branch campus advisory council, four faculty members appointed by the Campus Advisory Council representing different instructional areas, and two student members.

All associate degree and diploma programs are analyzed statistically by the Curriculum Advisory Council on an annual basis. The statistical analysis uses district placement and follow-up reports based on five-year averages, and information collected as indicators of program effectiveness. These last are the jobs for which a program prepares students (DOT job titles), enrollment, graduation, related employment, and average starting salary figures, plus the subjective assessment of each of the evaluators as to what these should be.

On the basis of the statistical analysis, the least viable programs are identified, and the analysis and its conclusions submitted to the WBVTAE Bureau of Program Accountability. The Curriculum Advisory Council prepares specific written recommendations for each program needing further study and submits them to the District Administrative Cabinet. Possible recommendations include expansion, revision, or discontinuance of the program; an in-school department study; seeking advisory council recommendations on the local and state levels; study by a State Board consultant; or in-depth program evaluation by a full team.

In order for a program to be recommended for in-depth study, it must qualify by failing to meet specific minimum standards. For intake, total enrollment, retention, and employment specific percentage, standards have been set. A range of five to ten percent above this standard is designated as the "caution" range. To be targeted for further in-depth study, a program must have either two ratios below minimum and one additional one in the caution range of three or more below minimum.

For each program designated for in-depth evaluation, the appropriate district administrator contacts the State Board Bureau for Program

Development for participation and sets up the program evaluation committee. The committee typically includes state and local advisory council members, a state board member, and outside district instructors and supervisors from similar or like programs. Criteria used in the evaluation are the ability of the program to attract and retain students, labor trends and needs compared to student placement records, facility utilization, cost/benefit of the program operation, district, state and professional organization advisory committee recommendations, the ability of the program to meet the needs of special groups, and the ability of the program to upgrade students in their present occupation. Within this framework teacher and course quality are examined as well as the composition and activity of the advisory committees. Upon completion of the evaluation a final report for each program is written up by the appropriate district administrator with recommendations to the district director. Recommendations for discontinuance are then approved by the district board and State Board procedures are followed. Other recommendations are followed up after six months by a one-day visit by the team chairman and the team member from the State Board.

In-depth evaluation has been done of eight programs under this procedure and two more are currently being evaluated. The district has funded the evaluation procedure specifically through its small grants fund.

The district is making definite moves toward more competency-based education and anticipates increased involvement of the advisory committees in evaluation once this has been accomplished, as well as greater coordination with the secondary vocational education programs.

District personnel were quite satisfied with their evaluation procedures and anticipated smooth coordination with the WBVTAE in complying with federal mandates.

III. Evaluation of Vocational Education by the Wisconsin Advisory Council

The Wisconsin Advisory Council consists of 27 persons appointed by the governor from diverse backgrounds in labor, management, agriculture, business, industry, and government. Active committee responsibilities from the basis of the Council's operation--research, state planning process, annual evaluation report, legislation, and an executive committee make up the roster of working committees. The current budget for the operation of the Council allocates approximately $25,000 directly committed to evaluation.

The 1976 Amendments have added three duties to the original work of the Council:

1. they are to consider program evaluation reports developed by the state board;
2. they must consult with the State Employment and Training Council and comment on the reports of this manpower agency;
3. they are to give technical assistance to local advisory councils.

At a joint meeting of NACVE and SACVE in May of 1977, the following format items were decided upon for the annual evaluation reports of the state advisory councils;

1. evaluation of progress toward accomplishing program goals set forth in the five-year State Plan and the annual program plan;
2. a review of (monitoring) the State's evaluation of vocational education programs operated by local educational agencies and other recipients of federal funds;
3. a review of the analysis of the distribution of federal funds within the State submitted by the State according to the annual program plan and accountability report;
4. identification of the vocational education and employment and training needs of the state and the assessment of the extent to which vocational education, employment training, vocational rehabilitation, and other programs assisted under the Act and related Acts represent a consistent, integrated, and coordinated approach to meeting those needs;
5. comments on the reports of the State Manpower Services Council;

6. recommendations for improving the state's vocational education program, services, and activities;
7. progress made on Advisory Council's previous recommendations to the State Board.

Three evaluation tasks undertaken be WACVE since 1976 are reviewed in this study.

A. "An Assessment of Vocational Education in Wisconsin-1976"
B. "An Assessment of Vocational Education in Wisconsin-1977"
C. "Follow-up of High School Non-Completers-1967-76"

A. An Assessment of Vocational Education in Wisconsin-1976 (Franken and Earnhart, 1976)

The seventh annual evaluation report to the USOE and the Wisconsin State Board was in the form of a comparison study of vocational education in seven mid-western states. Those states are Wisconsin, Illinois, Indiana, Iowa, Michigan, Minnesota, and Ohio. The purpose of this study was to identify strengths, weaknesses, and accomplishments in the several states with a view toward making recommendation for Wisconsin's program. Background for the study consisted of factual information of geography, demography, the economy, and the governmental administration of the seven states.

The goals of the study were to gather factual information in each of the six areas listed below in "Findings". The Advisory Council's goal in gathering this information was to establish a factual base from which to formulate program improvement recommendations.

Procedure

The study was done with the assistance of the State Advisory Councils in each state who sent informative materials to the researchers. In addition to this data collection, interviews were conducted with state directors and state staff in each of the cooperating states.

Findings

Since this was a comparative study, facts and figures were obtained for each state in the following areas of concern:

1. vocational student enrollment, placement, and follow-up (included is enrollment by levels, by programs, of disadvantaged, handicapped, and minority groups, and information of placement and follow-up of secondary, and postsecondary students);
2. funding for vocational education in the midwestern states, (specific breakdown of expenditures are made for federal, state, and local dollars);
3. state and local structures effecting vocational education delivery systems, the school districts, vocational postsecondary districts, and state college or university systems are described; the administrative system for vocational education in each state is given; state and federal legislation concerning vocational education is reviewed;
4. use of career education in the school system; concepts and models for career development utilized by the various states are reviewed and diagramed;
5. teacher certification, and staff development procedures; the number of teachers, their preparation and training, preservice and in-service activities in each state, teacher contracts, and professional development opportunities are discussed in this section.

Recommendation of the Wisconsin Advisory Council

With the body of factual information gathered from this comparative study, the Council proposed the following recommendations for program improvement in Wisconsin (in the report 14 specific recommendations are made):

Planning and Re-structuring

The Council proposed that regional planning districts for secondary vocational education be established of sufficient size to deliver adequate programs on the secondary level. They also advised that the State Board take a more active role in developing policy and guidelines for vocational education at high school level, and that together the State

Board and the DPI work to support and implement the Wisconsin Career Education Model. The Council also suggested that the Bureau of Career and Manpower Development within DPI be accorded divisional status, and be directed by an Assistant Superintendent of Public Instruction.

Enrollment

That the proportion of vocational education students in high school be increased through better counseling, more program offerings, and increased effort be made to enroll handicapped, disadvantaged, and minority students in vocational education and to provide sex equity in programs.

Funding

Greater state and local resources should be allocated to vocational education at the secondary level, the Council believes. In comparison to neighboring states, the Council finds Wisconsin deficient in allocation of state and local funds (only $39 reported in Wisconsin as compared to the allotment of $273 per enrollee in Minnesota, and $822 in Michigan).

Staff

That new vocational education instructors in all institutions and systems receive both orientation and in-service training. That both the State Board and the State Superintendent of Schools review certification standards for high school vocational education teachers and also the rules relative to five year professional development be reconsidered to the necessity of recertification.

Evaluation

The Council recommended that an improvement be made in the quality of information received in follow-up studies of postsecondary students. In comparison to other states, Wisconsin's record on follow-up was second to the worst. For fiscal year 1974 the status of 28.2% of postsecondary completers was unknown.

B. An Assessment of Vocational Education in Wisconsin 1977 (WACVE, 1978)

This was the first annual report of the Council using the guidelines agreed upon by the National and State Advisory Councils in 1977. With the exception of the analysis of the distribution of federal funds, all suggested criteria were covered in this report.

Recommendations for the Year 1977

The twelve recommendations for the year concerned both policy and practice in vocational education programming. These recommendations are grouped below under four headings.

Planning

The Council saw necessity for long-term program planning for vocational education at the secondary level and asked that DPI and the State Board cooperate in this effort. They also requested a quarterly progress report be made to the Council on the status of the planning effort. In regard to the State Plan, the Council suggested clearer, and more specific identification of ways in which program goals were to be implemented.

Staff

The Council saw a need for certification standards to be developed by the two administering agencies to allow VTAE certified staff to instruct in high school programs. They also suggested that high school counselors be required to complete a college level course in philosophy, principles and issues of vocational education, and that certification standards emphasize the need for specific course work to prepare vocational education teachers in meeting the needs of disadvantaged, handicapped, and other target groups.

In school districts where no recognized vocational education program existed, the Council advised that consultant services through DPI be provided for leadership in developing quality programs.

Funding

The Council recommended that the State Board and DPI work cooperatively for greater state and local resources for secondary vocational education. They also recommended that the Project Method of dispersing funds used by both these agencies, and by the Bureau of Career and Manpower Development be placed with alternative methods of funding. Also recommended was the documentation of progress through past funding efforts, and provisions of information on unmet needs to state and federal authorities to show the need for increased financial support for vocational education.

Special Need Groups

The Council urged the State Board and DPI to continue to emphasize enrollment of all special need target groups, especially the handicapped, and that elimination of sex stereotyping be advanced by employing special consultants for this at the State Board.

Progress Report on 1976 Recommendations

The 14 recommendations of the previous year's annual report (see Assessment of Vocational Education in Wisconsin-1976) were restated and each was discussed in terms of agency response and current status. Space will not allow full presentation of the 14 recommendations; only the first is described here to show the format used:

Recommendation 1. That the State Board take an active role in developing policy and guidelines for secondary level vocational education in Wisconsin.

Agency Response: The State Board has moved toward more joint review of programs. DPI believes that present joint review represents a cooperative effort, but points out that approval of programs at the secondary level lies with the local school boards.

Current Status: Two recent activities relate to this recommendation:

..The DPI will establish a long-range planning committee with active participation of the State Board.

..Both the State Board and DPI staff will serve on a new governor's committee to reexamine priorities of funding for secondary programs.

Comments on the Employment and Training Council

Mandates of the 1976 Amendments were that the Council consult with the State Employment and Training Council concerning the employment and training needs of the state and assess how these are met by vocational education programs. In addition, the Advisory Council must comment at least once annually on the reports of the Employment and Training Council. Shared membership was another requirement, and is accomplished by giving the executive director of each council membership on the other body.

The requirements of the law made it imperative that the Advisory Council have the ability to gain access to current employment and training needs data and that they also participate with the Employment and Training Council in a joint evaluation of the effectiveness of vocational education training.

During the year 1977, reorganization of the Employment and Training Council delayed cooperative and consultative relationships. However, this is expected to change when the new structure is in place.

Comments on State Planning and Goals 1976-81

The Advisory Council believed that there is continuing need to build specific accountability measures into the planning process to assist in detailing progress in measurable terms over time. The goal statement in the State Plan was also of concern to the Council. They wished to see goals stated as operative objectives using specific language, and set outcomes associated with each goal statement.

Council Comments on Data Reporting

The greatest area of agreement on the Council was for priority attention to the responsibility of data collection to prove the progress being made by vocational education programming. The council not

only supported efforts of Congress to intitiute a national data collection system, but urged that problems at state and local level receive added attention. The areas in need of improvement were:

1. better cooperation at local level;
2. sufficient authority at state level to require such cooperation;
3. clearer understanding of who pays for evaluation tasks;
4. a more central and coordinated collection of data.

The Council also believed consideration must be given to a study of cost benefits associated with vocational education to determine social and economic impact.

C. Follow-up of High School Non-Completers 1967-76 (Kumar, Vasant, and Bergstrand, 1979)

In an attempt to deal with the problems of high school students who are non-completers, the Wisconsin Advisory Council sponsored a follow-up study of 1,000 of these students who had left school without a diploma. Objectives basic to this study were:

1. to identify the status of non-completers from selected high schools for three academic school years--1967-68, 1972-73, and 1975-76;
2. to identify the economic status the non-completers achieved;
3. to determine the educational status of high school non-completers.

The Council sought, in this study, to profile the non-completer--who they are, what are their needs, and what is happening to them.

Methodology

Telephone and personal interviews were conducted with 966 non-completers from a universe of 1,000 selected from 41 small, medium, and large school districts. Interviewers promised anonymity to respondents and legal aspects of use of school records were carefully checked out and proper procedures followed.

The questionaire asked for information on the students present employment, occupation, salary, work habits, attitudes, and feelings

about work, length of time on the job, unemployment, and other related questions.

Advisory Council's Recommendations Based on This Study

As a result of reviewing the study and the data gathered, the following recommendations were made by the Advisory Council. These were stated in 14 specific recommendations and are grouped here by topical concerns:

Planning

That local high school districts and the VTAE districts develop and file a plan describing activities and procedures to better meet the needs of potential non-completers. That secondary schools establish career planning and counseling for these students and their parents.

Curriculum Changes

That program modules on parenting be included in the Home Economics curriculum and that these courses be available to both sexes. That new and revised curriculum in all areas focus upon making courses of instruction practical, individualized, and career oriented. That instruction in "basics" be delivered in a competency framework with standards which high school completers must achieve.

Legislative Changes

That legislation be adopted to enhance the chances of potential non-completers by adopting "Individualized Education Programs" to bring the efforts of significant others to bear upon resolving the problems of potential non-completers. That Wisconsin Statutes related to enrollment be reviewed to utilize daily attendance or several enrollment checks in determining State Aids.

Communication and Record Keeping

That formal communication between local high school districts and VTAE districts be promoted in order to allow post high school institutions to contact non-completers. That a uniform record reporting

and collection system for identifying and reporting non-completers be established. That awareness of the problems of non-completers be developed state-wide, and at community and personal level.

Educator Awareness

That those responsible hire teachers with sensitivity toward individuals with special needs and a sincere interest in helping all students develop their skills and talents. That a number of school districts in the state with the lowest rate of non-completion be studied to determine whether their strategies are transferrable to other districts.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter will briefly summarize the procedure, methodology used in this analysis, and will give a short description of the findings. The conclusions drawn, and recommendations for further research and implementation of policy are also stated.

Methodology

As the legislation for the 1976 Amendments in vocational education was being proposed, there was a concern in Congress over the lack of adequate evaluation in provious vocational education programs. In the 1976 Amendments, Congress built in requirements and mandates for evaluation.

A major concern was a lack of coordination of vocational education with the labor market. One of the weakest areas of evaluation was in follow-up studies to show job placement and employer satisfaction.

In the Amendments Congress made clear that vocational education must become:

1. more responsive to the labor market;
2. more accountable for how federal dollars are spent;
3. more open to special sub-populations--women, minorities, handicapped, disadvantaged, people with limited English, and displaced homemakers;
4. less sex biased and stereotyped.

The major purpose of this publication is to identify and describe evaluation programs in vocational, technical education at the national level, within the state of Wisconsin, and within selected local school districts in Wisconsin.

The early tasks in this study were to analyze the Vocational Education Amendments of 1976 and identify those mandates in the Amend-

ments which relate to evaluation of vocational education programs. Visits were then made by members of the research team to the NIE, USOE, NCES, and NCRVE. The major purpose of these visits was to acquaint personnel from these agencies with the study and to obtain materials and information. Copies of completed studies, request for proposals, and other documents were obtained from each of the above sources as well as the National Advisory Council for Vocational Education.

Data for the Wisconsin section of the report was obtained primarily from personnel in DPI, State Board for Vocational Education, the State Advisory Council for Vocational Education, and visits to both postsecondary and secondary programs within the state. The on-site visits which were made to the schools were to determine:

1. the extent of evaluation;
2. additional evaluation beyond that conducted or mandated by DPI or the State Board for Vocational Education;
3. the problems involved at the local level conducting evaluation of vocational education programs:
4. the use made of findings of the evaluations.

Five postsecondary institutions and 13 secondary institutions were visited.

The 1976 Amendments increased emphasis on evaluation and accountability in vocational education. The Congress very specifically spelled out types of evaluations and major areas of responsibility. Three types of agencies or groups with input into the evaluation process were designated. The first of these was lay advisory groups composed of business and industry, labor, and the general public. The second was those agencies providing programs for vocational education including the BOAE at the national level, state boards of vocational education at the state level, and local school districts at the local level. A third group was outside agencies such as the NIE, NCES, NCRVE and other private or public agencies with which these groups wished to contract in phases of evaluation. Strong emphasis on coordination of efforts at all three levels is evident throughout the legislation.

Summary of Legal Mandates

The expressed purpose of the 1976 amendments to the Vocational Education of 1963 is to improve planning in the use of resources for vocational education through two main avenues: involvement of a wide range of agencies and individuals in plan development, and use of federal grants to improve existing programs, develop new programs, eliminate sex discrimination, and make realistic, high quality vocational education available to all.

To this end an administrative structure has been mandated which established for those receiving federal funds a State Board of Vocational Education or similar agency and a State Advisory Council on Vocational Education.

Summary of Findings

At the national level four major agencies have responsibility for evaluation of vocational education. These are the National Advisory Council for Vocational Education, the United States Office of Education (primarily the Bureau for Occupational and Adult Education and the National Center for Education Statistics), the National Institute of Education, and The National Center for Research in Vocational Education.

National Advisory Council

In keeping with the National Advisory Council's mandate to advise the top levels of decision makers, the studies and evaluation undertaken by the National Council are of national issues and are centered around the functioning of the vocational education system as a whole.

There is evidence in the legislative action taken by Congress that legislators do listen to the National Advisory Council. One good example of that may well be the creation of the National Occupation Coordinating Council which forces top level staff of the Office of Education, National Center for Educational Statistics, the Commissioner of Labor Statistics, and the Secretary of Labor for Employment and Training to get together to coordinate their efforts.

It should be remembered that the structure for participation in the vocational education process by lay groups was designed to operate at three levels, and that the entire system must therefore be looked at to see the complete picture. State and local councils could be expected to have a more direct contact with local problems while the duty of the National Council is to bring clarification to decision-making at the national administrative and operational level. The impact of the Council' efforts are multi-dimensional in the changes can be effectual in the operation of the following: BOAE, USOE, HEW, and other agencies such as the Department of Labor, and in state response to the Bureau leadership.

United States Office of Education

The Congressional mandate to USOE was to improve vocational education programming, with increased emphasis on planning, accountability, and evaluation. The following evaluation projects are included in this report:

A. Management Evaluation Reviews for Compliance and Quality (MERCQ);
B. Vocational Education Data System (VEDS);
C. Study of Sex Discrimination and Stereotyping in Vocational Education;
D. Study of Bilingual Education and Annual Status Report;
E. National Study of Vocational Education Systems and Facilities.

Two of the studies which related to evaluation had been done for in-house use in USOE or HEW. The first of these was a study by Ed Rumpf which was to ascertain cumulative data burden involved in complicance with federal laws with the states. The second was an evaluation of BOAE by a HEW task force chaired by Barry Stern, from the Office of the Deputy Assistance for Educational Policy Development. As these were both for internal purposes they were not released to the study team to include in this report.

MERCQ is intended to be a cooperative endeavor of USOE and the states to measure each states' capacity for and performance in complying with vocational education acts and amendments. It is to augment evaluation

by state advisory councils and federal agencies. State by state evaluation began in March 1976. When MERCQ is fully implemented each state will be evaluated every five years. Four ratings are possible as a result of the evaluation:

1. in compliance;
2. non-compliance;
3. compliance to be determined;
4. regulations not applicable.

In cases of non-compliance or compliance to be determined the follow-up actions are established. When not in compliance in areas where other agencies have shared responsibility these agencies are advised to also review the results.

In January 1978 consideration of program quality was added to the MERCQ system. Two interview guides dealing with state planning and follow-up procedures have been developed and more are in process.

The Vocational Education Data System is to be a comprehensive data collection system which will be in place nation-wide in 1979. Its purpose is to assure accountability and use of federal money and to provide comprehensive and uniform data, which can be used in program improvement and planning. The major components of VEDS are an education component, which records and reports data in program, students, completers, leavers, and staff; the educational impact component which records data on follow-up of completers/leavers of those programs contained; and the educational finance component which provides information on the expenditures by instructional categories. Federal funds other than those used under the Vocational Education Amendments of 1963 are not included but state and local expenditures are included.

If implemented as intended the VEDS system should accomplish the legislated task of providing uniform definitions and criteria to provide an aggregate of data nation-wide. Congress should be able to look at vocational education as a national thrust and answer the questions it posed in the hearings.

The National Study of Vocational Education Systems and Facilities concluded that the effectiveness of federal support to vocational education could be improved. An examination was made of the relationship which exists between federal requirements and existing state policy and practices and statutes.

The studies on the extent of sex discrimination and sex stereotyping in vocational education programs and the study of the Bilingual vocational education program are now in progress and should give the Congress extensive information on the results of these two programs.

National Institute of Education

NIE was given the responsibility by the legislation for a study which would examine:

1. the distribution of vocational education funds;
2. how to achieve compliance with federal laws;
3. the means of assessing program quality and effectiveness;
4. the effectiveness of consumer and homemaking education programs.

In order to carry out the mandate three major research projects have been funded in relation to:

1. the distribution of vocational education funds;
2. state and local administration of compliance and evaluation practices;
3. a study of the responsiveness of the consumer and homemaking evaluation system.

Additional substudies are:

a. the effects of vocational education on participating students;
b. state of the art review of vocational education evaluation;
c. assessing how well vocational education has met the needs of groups with special needs.

At this time there is little to report except that the studies are under way and funded. Approximately $2,000,000 has been contracted for the research effort in NIE. Within two to three years the research

should be completed and the research ready for analysis.

National Center for Research in Vocational Education

One of the major responsibilities of NCRVE was that of developing methods for program evaluation and providing technical assistance to the states in their evaluation procedures. A list of the evaluation activities with which the Center has been involved are as follows:

Studies and Projects:

1. "An Investigation of the Correlates of Placement in Vocational Education" 1979;
2. "Examining Vocational Education Outcomes and Their Correlates" 1979;
3. "Interpreting Outcome Measures in Vocational Education" 1978;
4. "National Academy for Vocational Education Evaluation" 1979;
5. "Providing Technical Evaluation Assistance to State Education Agencies" 1979;
6. "Evaluation of Vocational Education: Roles, Responsibilities, and Responses of State and Federal Agencies' 1979;
7. "Specification for Longitudinal Studies of Former Vocational Education Students";

Five Small Scale Studies in Experiential Education

1. "A Provisionsl Typology of Experiential Education Programs";
2. "Preliminary Investigations of the Impact of Participation in Experiential Education in Work Settings on the Relations of Youth with Peers and Adults";
3. "Preliminary Investigations of the Retention Roles of Selected Concepts Resulting from Students Enrolled in Courses Which Provide an Inschool and Experiential Learning Option";
4. "Study to Investigate the Overlap of Experiential Education Program Culture with the School System Culture and Work Culture";
5. "An Exploratory Study of the Impact of the Expectation of Various Participants in Experiential Education Programs";

Handbooks

1. "Evaluation Handbook: Guidelines and Practices for Follow-up Studies of Former Vocational Education Students" 1979;
2. "Vocational Education Measures: Instruments to Survey Former Students and Their Employers" 1978;
3. "Evaluation Guidelines and Practices for State Advisory Councils" 1979;
4. "The Case Study Method: Guidelines, Practices, and Application for Vocational Education Evaluation" 1980;
5. "Assessing Performance Skill: Guidelines and Practices for Vocational Education" 1980;

Monographs and Papers

1. "Data Sources for Vocational Education Evaluation" 1979;
2. "Impact Evaluation in Vocational Education: The State of the Art" 1979;
3. "Longitudinal Methods as a Tool for Evaluating Vocational Education" 1979;
4. "Needs Assessment for Program Planning in Vocational Education" 1979;
5. "Use of Evaluative Data by Vocational Educators" 1979.

As can be seen from this listing the Center is following its major responsibilities of developing evaluation techniques or materials and assistance for the states in carrying out their evaluation programs. The majority of these are under way and results are not yet available. The majority of the work the National Center is doing will be forthcoming in the near future. The Center has been appropriated approximately $2,500,000 for evaluation projects that have recently been completed or are now in process.

Evaluation of Vocational Education in Wisconsin

The postsecondary and secondary vocational education programs in Wisconsin are reported separately in this document due to the fact that each is responsible to a different administration system. Postsecondary is under the State Board of Vocational Education and the secondary is under the Department of Public Instruction.

A. Evaluation of Secondary Program

The DPI of Wisconsin has developed a comprehensive system of evaluation for its secondary vocational programs, and are now in the second year of a five-year cycle, which utilizes the system. The program is designed to provide outcome data for three administrative levels in the following orders of priority:

1. local level--to promote and assist in the evaluation of secondary vocational programs for purpose of program improvement;
2. at the state level--provide the DPI with valid and representative data on which state wide planning for vocational education can be based;
3. the national level--help insure accountability of federal and state funds allocated to local secondary vocational education programs and satisfy federal and state requirements for evaluation in a five-year cycle.

The evaluation system consists of three phases: self-evaluation, external evaluation, and implementation of the evaluation findings. Self-evaluation is conducted by the local school people who are to develop a written self-analysis and draw conclusions and recommendations. The second phase of the external evaluation is done by an external team composed of poeple from DPI, Stout, administrators, teachers, and local vocational education coordinators from other schools. The third and most important phase of the model is that of implementation of evaluation findings. This is left primarily to the individual schools for development. It is strongly suggested that they take into account the state and federal requirements for annual accountability.

The opinion of those persons involved in the evaluation system was generally positive. The only real criticism was involved with timing. Evaluation appears to feed directly into program improvement at the administrative level, but in some cases there was no obvious mechanism for it to reach the teachers. In a few cases there was resistance of the school board and/or adminstration to the recommended changes which was cited as a major obstacle to the implementation of evaluation findings.

Following the evaluation model is not sufficient to guarantee the quality of the evaluation effort, and in some cases the self-evaluation report appeared to have less than sound data upon which to base conclusions. It should be remembered that the procedure is new to many districts, and the habit of following what all districts agreed on was a sound and well-described evaluation model will most likely lead to improvements in both the report and the way the district makes use of it for their own planning and improvement.

In addition to the requirement for implementation of a comprehensive evaluation system by 1982, the DPI has carried out a two-phase process for development of local long-range plans. In order to attain minimum compliance with federal law, a skeletal long-range plan was required from each funded district by June 30, 1978. The deadline for submission of the final plans was April 15, 1979.

An extremely valuable part of the secondary evaluation is that of following up not only vocational students but non-vocational students as well, with comparison of their job placements. The validity of this data was one of the weakest areas of the secondary evaluation. Most of the schools were attempting to do a better job and in a year or two this phase should be strengthened.

B. Evaluation of Postsecondary Programs

Contacts were made with the Wisconsin State Board for Vocational Education to secure copies of policies and completed evaluations at

the postsecondary level. Visits were then made to five of the postsecondary institutions to observe and get information concerning evaluation at the local district level.

WBVTAE had conducted divisional reviews for the past three years. Their purpose is to provide additional background information to substantiate the effort of the WBVTAE in carrying out the responsibilities mandated by legislative action as indicated in Wisconsin statutes and federal legislation. They are scheduled so that:

1. each instructional area will be reviewed in each district on a five-year cycle;
2. state consultants will make three or more contacts per year;
3. each district will have one or two reviews each year.

The review supplements information in the WBVTAE and district offices with a two-day team on-site visit. Visitation teams are composed of state staff members appointed by the bureau directors of the Division of Community and Manpower Education, sometimes a State Advisory Council member, and usually a member from another district selected in consultation with the district being evaluated.

The WBVTAE established standards for program review and discontinuance in September 1976, setting a deadline of April 1, 1977 for submission of district procedures for the same. The requirement was established in the context of accountability, and while the procedure may be initiated at the district or state level, the disbursement of funds is made contingent upon adherence to the guidelines. Criteria against which program quality is assessed are:

1. ability of the program to attract and retain students;
2. ability to place students in related positions;
3. facility utilization;
4. cost and benefit of program operations;
5. local, state and national labor market trends;
6. district, state, and professional advisory committee recommendations;
7. ability of the program to meet the needs of special groups;
8. ability to upgrade students in their present occupations.

As of July 1, 1979 procedures for program modification will be established by the State Board, requiring State Board approval of all major modifications prior to implementation. These modifications are defined as changes in title, type, length, goals and/or objectives, description and/or DOT title. The request for modification includes the present and proposed program profiles, along with substantiating material to support the change, such as committee actions, occupational trends, consultant recommendations, legislative mandates, and so on.

In order to meet federal and state mandates, the WBVTAE is in the process of developing evaluation guidelines, which are scheduled for distribution to the district by January 1, 1980. Districts are then to submit to the State Board of Program Accountability by June 30, 1980, a plan for evaluation which includes objectives for district evaluation, assignment of responsibilities, and procedures for the three phases of monitoring and screening, on-site reviews, and impact appraisal. Procedures are also to be included for program modification and continuance or discontinuance. When this process is fully implemented it will replace the divisional reviews in meeting the requirement for evaluation on a five-year cycle.

At the postsecondary district level each of the institutions visited had some program of evaluation in operation. The majority of these were in the development stages. All were primarily following State Board guidelines. Two of the districts did have a history of intensive evaluation programs, primarily at the follow-up levels. The link between evaluation and planning had been somewhat weak in the past. There are indications that those personnel at the district felt this should be strengthened. There were also fears of the vast amount of resources and time that would be involved in the evaluation programs, and that this may drain resources away from the program operation areas. Some of the districts were making definite moves toward more competency-based education and anticipated an increased involvement of the advisory committees in evaluation once this has been accomplished. One of the weaker areas seemed to be that of articulation in secondary programs. There seemed to be reluctance to coordinate with secondary level programs and also reluctance to evaluate such linkages.

C. Wisconsin State Advisory Council

The Advisory Council in the State of Wisconsin recently conducted three studies relative to evaluation of vocational education. These are:

1. An Assessment of Vocational Education in Wisconsin-1976;
2. An Assessment of Vocational Education in Wisconsin-1977;
3. Follow-up of High School Non-completers, 1967-76.

The 1976 assessment was interesting as it not only looked at Wisconsin but compared Wisconsin with seven midwestern states in the area. This gave a benchmark for the recommendations rather than just a description of activities. A weakness in the follow-up of non-completers was there was nothing with which to compare them. It would have been of more value if there had been comparison made of non-completers of non-vocational programs or of those persons who completed programs. This would have given a benchmark for the data and aided in the development of more valid recommendations.

Conclusions

At the national level there are sizable evaluation programs in vocational education. The majority of these are in the beginning stages which makes it difficult to determine their effectiveness. There is some concern for the apparant lack of coordination, especially in the use of data bases. A number of major evaluation efforts are taking place collecting similar types of information from some of the same individuals. When these efforts reach the state and local levels, there is some confusion and even resentment on the part of those providing the information.

VEDS is an extremely ambitious system for collecting data relative to vocational education programs. Its size and complexity may have caused much of the resentment to be found in the various states concerning its use. There is very little agreement over the type of

information that should be collected and many of the states seem to feel the information that VEDS is collecting is not appropriate for their needs.

This problem points out the lack of agreement relative to the purpose of evaluation. Not only is there disagreement on the purpose of evaluation but there is extreme disagreement on the objectives of vocational education, and what data should be collected to determine if these objectives are being met. For such a system to be even partially successful there needs to be some agreement on the very basic purpose and objectives of vocational education. Otherwise, the chaos will continue and an extremely well-thought-out program can be lost.

The evaluation of the NIE seems to be quite isolated from the other programs at the national level. This is not necessarily bad and has the advantage of outsiders looking in to determine the results. There is some danger, however, of having NIE staff or contractors with little knowledge of the system completely ignoring some of the basic concepts of vocational education, or, on the other hand, spend larger sums of money to bring people in to help them to understand the concepts. At the time this information was collected there was no-one on the NIE staff working with evaluation with a background in vocational education. We were informed that a staff person would soon be transferring for at least a year from the Bureau of Occupational and Adult Education in the Office of Education to the NIE staff to bring in this expertise.

The National Center for Research in Vocational Education at Ohio State University has an extensive program in developing methods, techniques, and technical assistance for national evaluation programs. They are also developing such material that would be helpful to the state and local levels to secure the necessary data. As in the case of most of the other national evaluation programs, NCRVE is at a developmental stage and it is difficult to determine the value of their ambitious plans. If the purposes of the programs are realized, there should be extensive information and materials available soon to help vocational educators in developing evaluation programs.

There is a definite trend from only "process evaluation" to that of also looking at its product. There is nothing wrong with process evaluation as long as we have some indication that the processes being measured have some affect on the outcomes. Much such evaluation in the past did not have this knowledge base in order to reach judgements made. The trend is toward measurement of product and the process at the same time. It was enlightening to see that as a part of product evaluation that attempts are being made to have non-vocational groups compared with the vocational groups. This aspect of evaluation has often been completely ignored in the past.

The State of Wisconsin is probably one of the leaders in developing evaluation programs for secondary and postsecondary levels. The separateness of the two programs, one under the State Board for Vocational Education and the other under DPI makes it difficult to coordinate evaluations of the total vocational education program. This is especially true for articulation from the secondary to the postsecondary levels. Such coordination is not impossible and there are indications from both organizations of a willingness to improve the articulation in the evaluation function. Both the DPI and State Board for Vocational Education have plans underway to continue to strengthen the evaluation of vocational education programs.

Some of the weaker areas for both the secondary and postsecondary seems to be adequate follow-up. This is especially true for follow-up of those students who are non-vocational. Strong attempts are being made to correct this.

The State Board of Vocational Education in Wisconsin should be complimented on its attempts to relate evaluation to program planning. At the local level there is a reluctance to follow through, but at the state level the need is recognized and attempts are being made to see that future planning is developed from the results of evaluation. It was especially encouraging to notice that decisions to either continue or discontinue programs are made as a result of the evaluations.

The evaluation program at the secondary level under the direction

of the DPI is also quite unique in that there is a definite plan for a five-year cycle for evaluating all schools in the state. It is also encouraging to see that whenever possible these evaluations are coordinated with the North Central Association Accreditation, thus helping to eliminate some duplication.

There is strong concern, especially at the postsecondary level, of different agencies asking for similar information. Examples of this are the Department of Labor, the Veteran's Administration and the State Board asking for information that is much the same but at different times of the year. This is causing quite a drain on the resources at the local level and siphoning money which could be used for providing educational programs.

Generally, evaluation of vocational education seems to have a positive thrust. This is a change from the past. It has been unstructured and will not be possible to carry out unless adequate resources are provided.

Recommendations

The following recommendations are made concerning evaluation of vocational education at the national level.

1. That one system be developed to collect that information most important to the evaluation of vocational education; that all agencies or groups evaluating programs use this data base. This may or may not be VEDS. If VEDS is not successful, there needs to be some other data base developed.
2. That there be an attempt to agree on the major objectives and goals in vocational education. This agreement may have already been reached at the national level but is not true among the state and local schools.
3. That there continue to be the separation of responsibilities of NIE, NCRVE, NCES, and BOAE (USOE) for a different evaluation program. There should be closer coordination so that each will know what the other is doing.

4. That an attempt should be made in the next two years to analyze the findings of the evaluations now in process and to make these findings available to the Congress and other decision making bodies.
5. That adequate sampling systems be developed to collect information relative to the outcomes of vocational education. Such procedures would be able to save vast amounts of resources and still have the information necessary for decision making. Such sampling procedures should probably be structured to be sure that programs, geographic areas, ethnic groups, and other groups with special needs are represented.

The following recommendation are made concerning evaluation for the State of Wisconsin.

1. If the evaluation programs which are envisioned are to continue, additional resources may be necessary in order to carry them out. The plans are fairly adequate but within the next two or three years it will require more funding than is presently being made available.
2. Sampling procedures be developed to collect the information which may be necessary at the state level. (Probably the only level where it may be necessary for complete student follow-up would be at the local level.)
3. Technical assistance should be provided from both the DPI and the State Board for Vocational Education in developing systems at the local level.
4. The information from evaluation should be used for future program development.
5. Continued emphasis should be placed on having benchmark information from both vocational and non-vocational students.

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